

# KANSAS FARMER

FOR THE IMPROVEMENT



OF THE FARM AND HOME

Volume 49, Number 8

TOPEKA, KANSAS, FEBRUARY 25, 1911.

Established 1863. \$1 a year.

**I**N earlier days Kansas looked to the East for her money supply. This was a natural condition, for Kansas was then new to civilization; her broad lands uncultivated. Today her farmers are among the richest in the world and produce a wealth far beyond the needs of her own people. And Kansas, today is no longer a borrower, but lends her money to the East. Evidencing this, Mr. John R. Mulvane, President of the Bank of Topeka says: "Ten years ago our bank usually sent from \$25,000 to \$30,000 to the East to pay interest on Kansas bonds. Last July, 1910, we sent coupons to collect over \$20,000 in interest. We did the same in January, 1911."

This from only one of the many banks in Kansas. There is now a law on our statutes compelling municipal officials to offer all municipal bonds to the state of Kansas for investment in the permanent school fund, before selling them elsewhere.

Quite a change in conditions within ten years, in Kansas.



*Coming His Way Now*

# Buy an Irrigated Farm

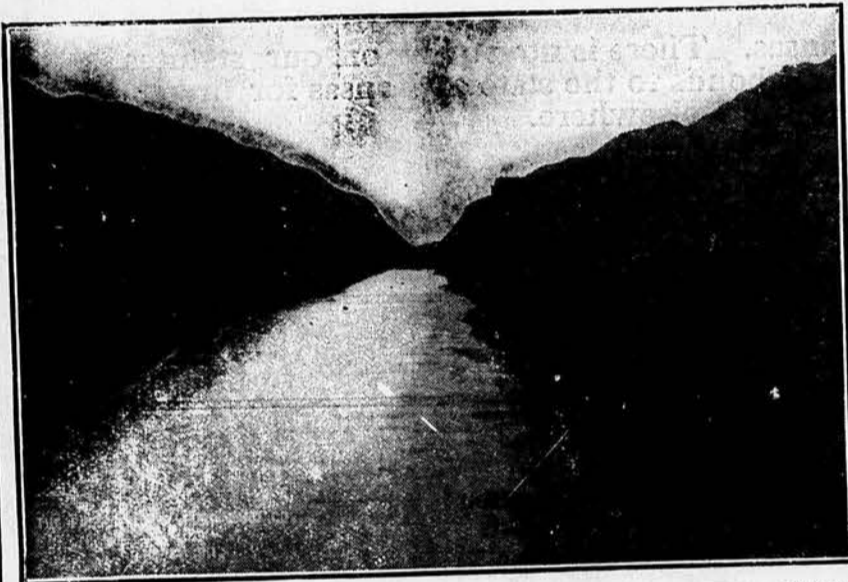
## Be Sure of Returns for Your Season's Work and Expense

Just now there are available for purchase some of the finest irrigated farms in the United States. These lands lie in the great Arkansas Valley, in Colorado just west of Kansas, hardly 125 miles from the west line of the state. These lands lie adjacent to Pueblo, a city of 60,000 people, in which are located vast manufacturing industries. In addition to fine lands, and certainty of crops, high priced markets are right at hand for all kinds of farm produce.

In no section of the United States does a farmer have a better chance to get the utmost, in returns for his time, labor and expense, as well as interest on the money invested in land and equipment.

## Grasp Present Opportunity

The Pueblo-Rocky Ford Land Company are rapidly selling out 50,000 acres of these Arkansas Valley lands. The land is sold in tracts to suit purchasers, and on the most liberal terms. Prices of land are low. Every opportunity is given to enable any industrious man to own one of these farms.



ONE OF THE PUEBLO-ROCKY FORD LAND COMPANY'S CANALS. PHOTO TAKEN JANUARY 31, 1911.

Not only is the land of the quality to insure big yields, but the irrigation works are ample, and of the most substantial construction. Concerning the latter, Mr. E. R. Chew, State Division Irrigation Engineer of Colorado, who went over the Pueblo-Rocky Ford Land Company's project, Tuesday, January 31, in an interview in the Pueblo Star-Journal, said: "I never inspected an irrigation project where the work was of a more substantial character, or where the engineering part of the construction work has been so excellently planned and executed. The Company has an irrigation project ample for its needs for all time to come. They will have all the water they need. Their project will afford irrigation to every acre of land under their ditches. They have spared no expense which would tend to better their project. The enterprise means a great deal for Pueblo and the Arkansas Valley and the promoters deserve the hearty support of Pueblo and the entire Arkansas Valley."

No man will ever regret getting a farm here. To get one, prompt action should be taken. This Company is anxious to show its property and explain its selling terms and prices to every one wanting to own a productive home.

Special low rate excursions are run out to Pueblo, and transportation facilities are provided free of charge to inspect the property.

The next excursion will leave Topeka and Kansas points Wednesday, March 8. You are invited to join it.

Write for full particulars, or if time is too short to write, wire us at our expense, and we will make provision to take the best care of you.

### Pueblo-Rocky Ford Land Co.

NEW ENGLAND BUILDING, TOPEKA, KAN.



## Do You Intend To Abandon Your Farm?

In New England there are hundreds of abandoned farms—abandoned because the soil has been drained of its fertility. Had these farms been properly fertilized they would still be producing bounteous harvests.

New England farms are not the only ones that are being depleted of fertility. There are thousands of other farms which are rapidly approaching the point where further cultivation will be unprofitable unless some means is adopted to renew the fertility of the soil.

If you do not intend to abandon your farm, it will be necessary to supply fertilizer to the soil. It is not only necessary to apply manure, but it is absolutely essential that it be applied evenly and in proper quantities.

Manure cannot be spread evenly by hand. Experience has demonstrated that the spreader is the only method by which manure can be applied uniformly.

It is just as necessary to exercise judgment in selecting a spreader as it is on any other subject. There are many spreaders on the market. The I H C spreader has proved its superiority by giving the users years of efficient service. With an I H C spreader you can regulate the distribution of manure so as to make every ounce count. Adjustments can be made to spread a light top-dressing or a heavy covering. This is possible because I H C spreaders have a wide range of feed, and the long, square, chisel-pointed beater teeth thoroughly pulverize the manure that is applied. Wide tires and roller bearings insure light draft.

I H C spreaders are made in three styles—

### Cloverleaf—Corn King Kemp 20th Century

Cloverleaf spreaders have endless aprons. Corn King and Kemp 20th Century machines have return aprons. These machines are made with capacity suitable for farms of any size.

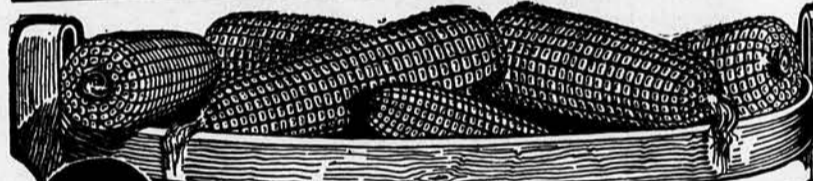
Call on the I H C local dealer and let him show you the style and size best suited to your purpose. If you prefer, write direct for catalogue and full particulars.

International Harvester Company  
of America Chicago U S A  
(Incorporated)



### I H C Service Bureau

The Bureau is a center where the best ways of doing things on the farm, and data relating to its development, are collected and distributed free to every one interested in agriculture. Every available source of information will be used in answering questions on all farm subjects. If the questions are sent to the I H C Service Bureau, they receive prompt attention.



## VANSANT'S FAMOUS—WORLD'S GREATEST YIELDING SEED CORN

You can't afford to risk your crop of corn by planting inferior seed corn nor buying it from jobbers. Buy direct from the oldest and most successful breeders. Raise 75 to 100 bushels an acre. We grow every bushel on the world's greatest seed corn farm—1500 acres—in trust your growing section of corn belt. Thousands regular praising customers. Send your name for **LARGE INSTRUCTIVE CATALOG FREE** We Won First Premium Iowa Exhibit World's Fair **WITH SAMPLES OF CORN** Remember Brother: **W. W. Vansant & Sons, Box B, Farragut, Mo.**



## MAKE YOUR OWN TILE

One Man Can Make 300 to 600 Perfect Tile a Day WITH **FARMERS' CEMENT TILE MACHINE**

at a cost of \$3 to \$5 per 1000. The only farm tile machine that does not require hand tamping; the only farmers' machine operated by either hand or power. Machine makes 3, 4, 5, 6 and 8 inch tile, 12 1/2 inches long. Our Patented Water-Proof FLEXIBLE CASING holds tile in perfect shape till set. No Pallets. If after **10 DAYS FREE TRIAL** with entire satisfaction, return at our expense. The price of the machine will be saved in making your first 2000 tile. Can You Afford to Be Without It? Write today for illustrated catalogue.

**FARMERS' CEMENT TILE MACHINE CO.,**  
Box 116 St. Johns, Michigan.



## BUY HARNESS FROM MAKER—SAVE 1/3 TO 1/2

You not only save one-third to one-half when you buy Harness from us, but you get the best Harness in the world; made by expert harness makers, in a splendidly equipped shop, from the best materials money can buy. Every Harness built on honor and sold direct with but one small profit between maker and user. Get our big Harness Book before you buy. Free—Send today. **H. & M. Harness Shop, 12 Ill. Av., So. St. Joseph, Mo.**



# KANSAS FARMER

## EDITORIAL

### THE TENANT FARMER.

The speaker of the Illinois House of Representatives is a farmer. He is the first farmer ever elected to that position in this body. He is a tenant farmer who does not own the land he tills and claims that he can not afford to do so.

These facts are sufficiently unusual but when it is known that he has occupied his present farm for eighteen years, during which time he has attained to fame and fortune, and has never had a written contract with his landlord, his case seems remarkable. These facts are not mentioned to urge the advisability of landlord and tenant depending upon a verbal agreement only, but rather to show the advantages that will accrue to both when the long lease system is adopted instead of the one year term. A man who has a long lease on a piece of land can afford to take the time and labor necessary to keep up its appearance as it will be his home for a considerable time. He can afford to keep up its fertility because his pocket-book will suffer if he does not. He can afford to maintain his place in church and society because he is a permanent fixture for a definite length of time. On the other hand, the landlord can very well afford to give him liberal terms because every effort put forth by the tenant for the benefit of the farm during his long lease is also to the advantage of the owner.

Most people will admit that the present common system of one year leases is all wrong and works to the detriment of both landlord and tenant, but not all are willing to admit that the fault is largely with the landlord. Almost any man who farms for a living on rented land would be a better man and a better farmer if he received proper encouragement and cooperation from his landlord and this can not be had under a system of short term leases. The only thing that seems to stand in the way of modifying the present destructive practice of one year leases is that very much of the land that is rented is subject to sale, and the owner does not wish to have the lease interfere with the transfer of ownership should opportunity come to him. It has been demonstrated in many sections of the country and very many times that land is about the best and safest investment into which a man can put his money. If the landlord, therefore, could give up the idea of selling and select a good tenant with whom he would cooperate and to whom he could give a long term lease, he would find that not only is his farm getting better and more valuable each year, but that his actual cash income is greater than it would be from almost any other investment he could make with the same amount of capital.

A very large proportion of the farm lands of England are tenant farmers. They are thrifty and well-to-do and they pay high rental for their lands. They farm in the most effective method because the tenancy depends from father to son and short leases are almost unknown. Too often we think that America is the only country on earth that is worthy of serious consideration and that we are the greatest people, yet the fact is that we occasionally do it is possible to learn things that are of real value from farm methods as practiced in the old country.

### TREATING THE HELP RIGHT.

An eastern reader who has a trade in the city but who loves the farm works there in preference to following his trade, complains that the average American farmer does not get his help with sufficient consideration. In his strong language he says:

"Our American farmer uses his men as he would a dog, and in fact more than a dog, which does not suit a decent man. I mean by a decent man, one that is sober, honest and hard working, and that is the kind I judge myself to be.

"I have helped farmers to get decent men from the city, but they would not stay more than a month at a time for the reason that they were treated as though they were nothing but low dogs. If ever our American farmers learn to treat a good, sober, hard working and honest man a little more

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. J. R. MULVANE, Treasurer. S. H. FITCHER, Secretary.  
Edited by T. A. BORMAN and I. D. GRAHAM.  
CHICAGO OFFICE—First National Bank Bldg., Geo. W. Herbert, Manager.  
NEW YORK OFFICE—41 Park Row, Wallace C. Richardson, Inc., Manager.  
Entered at the Topeka, Kansas, postoffice as second class matter.

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

**ADVERTISING RATES—25 cents per agate line—14 lines to the inch. No medical nor questionable worded advertising accepted. Forms close Monday noon.**

**PUBLISHERS' GUARANTEE TO SUBSCRIBERS—KANSAS FARMER aims to publish advertisements of reliable persons and firms only, and we will make good to any paid-up subscriber any loss he may suffer through fraudulent dealing on the part of any of our advertisers, provided complaint is made to us within thirty days after the transaction, and it is shown that the subscriber, in writing to the advertiser, plainly stated: "I read your advertisement in KANSAS FARMER." We do not, however, undertake to settle, or be responsible for the debts of bankrupts, or for petty and trifling disputes between a subscriber and an advertiser, although we extend our good offices to that end.**

**PICTURES—Good photographs, drawings and plans are especially solicited. Senders' names should always be written on the back of each picture. KANSAS FARMER can not be held responsible for any picture submitted, except under special written agreement.**

**CONTRIBUTIONS—KANSAS FARMER is always glad to have correspondence on all farm, live stock or household subjects. Your name should be signed to all communications and they should always be addressed to**

**KANSAS FARMER COMPANY, TOPEKA, KANSAS.**

socially or with more respect, and do not deprive him of a little pleasure, I think they will never have any trouble in getting men."

He further states that he has never been asked for references though abundantly able to furnish them and he predicts that when the farmer learns to treat a sober, willing and steady man with the consideration which is due a man he will not have trouble in securing all the help he needs.

Conditions differ in different parts of the country and even in different neighborhoods, but it is true that the treatment here complained of is all too common. Personally we know of one farmer in Kansas who always has plenty of good help which stays with him year after year, while some of his neighbors have the greatest difficulty in securing emergency help at harvest time and this only by means of extra wages.

Whenever there is anything wrong with the hired help it should be inquired into, but this inquiry should begin with the farmer himself. If he is doing the square thing by his help he probably will not have much difficulty. If not then it is time to change. You don't want mere animal strength in the hired man. A mule can furnish that. If a man gives good service treat him like a man. If not, get rid of him.

In New York State, which has long been famous for its careful agricultural methods, the silo has had a pretty fair trial at least among the dairymen. New York does not produce great quantities of beef as do some of the corn belt states and naturally the first test of the silo would be in connection with the dairy farm. It is very generally accepted as a fact that the silo has a place on the dairy farm and here in the corn belt it is rapidly becoming true that it has a place on nearly every farm where live stock is kept. It serves to furnish a succulent feed during the dry spell of summer as well as during the winter months, but its more important office lies in the fact that it enables the farmer to save his entire crop of corn instead of saving the ears only and wasting nearly half of the crop. A New York farmer in writing about this matter says: "With some farmers it is still a question whether to continue to feed their corn stover dry or to put the crop into the silo. Corn is one of the grandest crops that we can grow and we who keep cows

ought to grow all that we can well care for, whether it be for ensilage or grain. In growing corn I have found that it pays to prepare the ground in a most thorough manner by good plowing and repeated harrowing—most farmers do not harrow half enough. Corn is a crop, too, that it pays to fertilize well, and after it comes up, it should have frequent but shallow cultivation. It ought to be cultivated at least once a week until the horse and cultivator can no longer be gotten through it. This is one of the crops that I enjoy growing and when ensiled or harvested and cribbed, what farm product is finer to look at? There is much pleasure, too, in husking nice corn."

### WHAT THE PRODUCER GETS.

An official of the Department of Agriculture who has been figuring of late, says that there are some erroneous notions extant in regard to the relation of the farmer to the high cost of living. This idea is erroneous on both sides. It has been stated that the producer only gets 35 cents of the consumer's dollar but this is evidently wrong. According to his figures the producer of fruits, vegetables, poultry and dairy products gets 53 cents of the consumer's dollar. The railroads get 7 cents of it and the other 40 cents goes into the pockets of the middlemen.

Here is a wide gap which is filled out of the pockets of the consumers without any benefit to the producers.

If these figures are correct they make a better showing than is generally accepted but still they are too low. Prior to 1907 the farmer actually lost money on many of the things he produced and barely made a living on all. Since that time the cost of living has increased very greatly but the farmer has by no means received the whole benefit of it. Prices for farm products have been better but are not now and never have been out of proportion to the investment of time, money, labor and brains invested in his business by the farmer.

The farmer does not receive too much for his products but the consumer pays too much for them and the profits which make up the difference are not made by the transportation companies but by those parties who handle these products.

Guess the fellows who really have to work for their money are the senators with tight-wad fathers.

In regard to our advertising I will say that KANSAS FARMER ranks right alongside of the best papers we use. The results from your paper are, so far, very good. It is not very often that I hand out a bunch of violets but I just want to tell you that I have noticed a very decided improvement in your paper. I am glad to see this improvement because it is a Kansas paper and one that we will have to use as long as we advertise because it covers our field so thoroughly.—E. H. Balco, National Nurseries, Lawrence, Kan.

### DRY FARMING IN THE EAST.

Dry farming as an agricultural operation is not properly named. Under this title it conveys a wrong impression. Dry farming is simply good farming and is applicable to the east as well as in the west, in fact, KANSAS FARMER receives about as many inquiries concerning dry farming methods from counties and states lying east of Topeka, as it does from those to the west.

In speaking of the dry farming method, which is not a new one as many people suppose, Prof. L. H. Bailey of the New York Agricultural College has this to say:

"I am convinced that the dry farming movement has direct value in its application to eastern as well as western conditions. The movement is necessary, and therefore worth while, in its bearing on the welfare of those regions it should appeal to all the people; but it also has a bearing on agriculture in the entire country such as our people do not yet understand.

"We habitually associate 'dry farming' with dry regions; but the conservation of water lies also at the foundation of agriculture in most humid regions, as well as in semi-arid regions, for the crop in humid regions is very generally determined by the pinch of the 'dry spell' or drouth. As the strength of a well is measured by its weakest course, so is the crop producing power of the year determined, under prevailing farm methods, by the poorest or lest effective growing month.

"Farmers in the semi-arid regions are compelled to save the rainfall, and they prepare a definite program of conservation, making this program a part of their reckoning. But the farmer in humid regions usually makes little or no allowance or reckoning for drouth and when it comes he is caught, and yet the drouth and not the rainfall determines his crops.

"We shall never have a good agriculture until the farmer prepares for dry times and drouth just as conscientiously as he prepares for winter. The 'dry spell' of summer is usually considered to be a calamity; it is probable that a properly regulated system of husbandry would make such spells to be advantageous."

Eastern Kansas can use the so-called "dry farming" with profit in most localities.

### BOOK FARMING.

Once the term "book farming" was one of reproach but it is so no longer. By book farming is meant the application of scientific facts to the business of farming. Conditions today demand more intensive methods than was formerly necessary. Land prices are higher and better returns must be had to pay a profit on the investment, while the farmer of today is not satisfied to live as he once did. In helping along the methods demanded by modern conditions the Department of Agriculture has been the most powerful factor, and among its most efficient services rendered is that of inducing the southern farmers to vary and rotate their crops instead of continuing to raise cotton along. As a result of this work one southern state was able, last year, to export corn for the first time in its history, and a large number of farm boys became interested, through a corn contest, in better methods of farming. During the season more than 100 southern boys reported an average yield of 133 bushels of corn to the acre, while a South Carolina lad of 14 years produced 228 1/4 bushels on one acre, and a Louisiana boy produced 176 bushels of corn per acre at a cost of 9 cents per bushel.

During the coming season there will be 45,000 southern boys under 20 years of age who will enter the government corn contest for which prizes are offered. To the ordinary observer this contest may not seem of special significance but when it is remembered that the soil of the southern states is largely run down and depleted; that cotton alone has been the principal crop and that all this interest means a rejuvenation of southern agriculture its importance will be appreciated.

The future of this nation depends upon its agriculture and the future of agriculture depends upon the boys.

# Proper Status Of Agronomy

## An Old Science That Increases Both Crops And Knowledge Under Its New Name

By M. A. CARLETON, Washington, D. C.

In recent years much has been said about agronomy. There are now many agronomists in this country. The use of the term has become common. Yet the question, What is agronomy? if propounded to these same agronomists, would receive various and probably conflicting answers. There are at least two reasons for this condition, chief of which is that the growth of the subject has been so rapid that practice has far outrun definition and classification. Again, local conceptions of the term are colored by close relations in practice to certain other subjects, which are not the same in every locality. In Illinois agronomy is associated most closely with chemistry, in Iowa with physics and mechanics, and in Minnesota with animal husbandry.

That our ideas of definition and classification do not keep pace with practice is shown in the definitions given in recent dictionaries. The Standard defines agronomics as follows:

"The science that treats of the distribution and management of land, especially as a source of national wealth."

Agronomy is defined as scientific husbandry, and an agronomist as one who applies agronomic principles to the management of land.

Webster defines agronomy as "the management of land; rural economy; agriculture." Agronomics is called "the science of the distribution and management of land."

According to the present conception in this country, agronomy as a science may be defined accurately as the study of field crops and their relations to the environment; as an art it is the management of field crops and the soils in which they grow. The derivation of the term is from two Greek roots, agros, a field, and nemein, to handle or manage, the literal meaning of the word being the handling or management of fields. In present use, therefore, we have not wandered badly from the original meaning, but have made the field crop, instead of the field, the unit of investigation.

Agronomy has been recognized in European countries as a definite subject of thought and action for a long period. In France the title "agronome" is common, and is applied to rural economists, managers of large estates, and to teachers and investigators of farm management, cultivation methods, etc. In Russia the use of the term is much like the present use in this country. The Russian agronom (spelled without the French final e), is a well-known official of the general government, having duties exactly like those of present-day agronomists in this country, but his work is much less specialized, as might be supposed. Often the same official will have charge for a certain district of all questions of plant pathology, injurious insects, cultivation methods, and soil treatment.

There is no better time and place than the present to point out the importance of a clear and uniform conception of the proper status of agronomy. I will mention a number of common errors made with reference to the subject that are manifest. There appear to me to be others with respect to which there may be a difference of opinion. In the first place agronomy is not simply "variety testing," though this is a common notion among non-agronomists. Variety trials simply to determine which gives the most bushels per acre belong to the days, only 20 years ago, when agriculture (agronomy) was defined as "an empirical art," yet agronomy has developed largely from these very old-style variety trials; and every agronomist today has dozens or hundreds of varieties or strains on trial, as a partial basis of his work, but results are reported by trained observers, not by farm superintendents, and scores of qualities, besides yield, are carefully studied. Agronomy is also not plant breeding, but includes it along with other equally important subdivisions. I have already defined agronomy as both a science and an art. As a science it investigates any-



EACH SASH OF CONVENIENT SIZE SO THAT THE HOT BED MAY BE VENTILATED.

thing and everything concerned with the field crop, and this investigation is supposed to be made in the most thorough manner, just as would be done in any other science.

The qualifications of an agronomist should therefore be of the highest order. There is a prevailing impression otherwise, partly because of the plain fact that so many aspirants have obtained admission to the ranks before being ready to wear the badge, because of insufficient training. They may be fitted for farm superintendents, but not for agronomists.

Referring again to the apparently simple matter of comparing yields of varieties, a trained investigator finds this to be really a complex problem. Under favorable or even ordinary conditions yield tests are wholly unreliable—even misleading. Extreme conditions furnish the true test, and the experimenter must be able to catch those qualities of obscure varieties that fit these conditions. The very popular Turkey winter wheat was grown by "variety testers" for over ten years without suspecting its good qualities. The principle of the correlation of characters lying at the foundation of all crop improvement is appreciated only by trained observers. The unmistakable marks are there, and they tell more to the "man who knows" than the measured bushel at the thrasher.

The "Alaska" wheat fake was a case (not uncommon) of deceptive figuring. A single wheat plant of almost any common variety may produce 40 stools, but to multiply that by the number of plants usually grown on an acre proves nothing, except that in this case it proved to be a dangerous pastime. It would hardly seem to require the training of an agronomist to detect this deception, but there is more in the subject than appears at first sight. Grow a number of plants of the same strain together and soon you hardly recognize the individual. Instead of 40 stools you get three to five, while other characters suffer similar changes.

We are here confronted with the very interesting complication of a plant community, otherwise known as the crop—the same thing we have always dealt with, but didn't know it. We had thought we were dealing with plants simply, not thinking of characteristics of people of a community are quite different from those of people who live alone, and so also the crop as a whole. A change in the point of view is necessary. The same results proportionally can not be expected from a crop that may be the characteristics of a crop are different from those of single plants even of the same species or variety.

These facts bring to mind the fundamental value of botany in agronomic training and particularly of

that branch of it called ecology—the study of the plant community. This much-neglected branch of botany thus becomes of the greatest importance for agronomy, and, in fact, may be considered in a sense the transition zone from general botany to agronomy, because the unit of study in botany is the plant, while the unit in both ecology and agronomy is the plant community.

One must be impressed by the frequent tendency to do things backward, more common, it seems, among Americans than in foreign lands, probably because of the intense desire of our people to get results quickly. The cart is so often ahead of the horse that we are accustomed to look for the cart first. Such is the course that has been pursued in much of the plant breeding of recent years in this country. No improvement in desirable qualities of plants is certain without knowing first the degree to which these qualities are already present in existing varieties. Yet men with little botanical knowledge of varieties and meager stocks for a foundation attempt much and get little. They are then led to investigate existing varieties more thoroughly and discover things they should have known before attempting breeding operations. There must be plenty of available material. We can not improve qualities that do not exist already in some degree.

The careful student of plants also soon learns that different methods are necessary in handling different subjects. But, know the plant and its life history thoroughly, and the rest is easy. Plant breeding should especially be kept distinct from animal breeding. The whole aspect of study in each is in no wise similar. To confuse the two leads to much inaccuracy of expression and waste of energy. It may seem proper to the animal breeder to speak of the "blood lines" in a turnip as well as in Jersey cattle, but the agronomist will prefer the traditional idea of this vegetable as to its sanguinary character, both literally and figuratively.

In soil investigations, physics and geology are the fundamentals, while chemistry and bacteriology are also indispensable. I am getting away from home in discussing this subject, but if allowed to criticize, I would suggest that more attention be given to bacteriology and geology, particularly stratigraphic geology, than is often given in the training of soil physicists. Investigations in such subjects as soil bacteria, action of enzymes, humus formation, etc., may also profitably take the place of much of the elaborate survey work as at present conducted.

Agronomic training, therefore, if superficial, is not the kind that is demanded, and will soon not be accept-

ed. The agronomist, in fact, looks deeper into things and closer than the botanist in all his study of plants, for he is studying varieties, not species, and must make closer comparisons and finer distinctions. Varieties as well as species also differ in the treatment required for them. For example, the proper cultivation of soil for spring wheat differs from that required for winter wheat.

If the agronomist must study everything relating to the crop, has he not more than he can do, may he not be asked? This is no doubt true if his field of operation is not restricted. The increase in number of qualities and the complexity of environment may be counterbalanced by a decrease in the number of subjects or a limitation of the area covered. For example, instead of handling all field crops, only the cereals may be studied, or only one of the cereals or the cereals for a limited district. Specialization as to subjects or area is thus the only salvation for the agronomist in order to do thorough work. The special titles of "cerealist" and "tobacconist" are already in use. No doubt others, such as "cottonist" and "legumist," will soon be proposed.

I wish here to attack the impression seeming to prevail in certain quarters that the atmosphere of the higher grade of universities is necessary to produce a true investigator. This notion is similar to the old one that education in German universities was necessary for the best training. It is now recognized that the chief advantage of study in Germany is simply the influence of a new environment. So also our agricultural colleges of the best grade and other industrial institutions are equal to any of the universities in training for scientific work, and even have the advantage in natural science training because of the environment.

In preparing for agronomic work whatever the previous training has been, an agricultural course is necessary to complete the education, and years of experience on the farm add to the students' ability. The academic course and the agricultural should be taken in different institutions, and no graduate of an agricultural college should be elected to a position in his own institution without intervening experience elsewhere. There is a splendid opportunity for research work in the broad science of agronomy, no doubt more than in other sciences, as it is a newer subject.

There is a world of facts to learn in the study of a single crop. The simplest things, too, furnish ground for the deepest study.

While agronomy is not a mere study of varieties, on the other hand it shall never get away from that kind of work conducted in the proper manner. A writer, discussing the use of the Adams research fund recently in a well-known journal, does so in an able manner, but makes a statement to the effect that "we can not continue to compare varieties of cabbages or strawberries to determine which are best for the market producer, but may be able to show how he himself can improve varieties," etc. The latter is certainly true, but whether we or he make improvements, it is impossible to do so without a thorough comparison of existing kinds, and there are always so many new qualities arising from new strains produced or discovered that these comparative studies will be endless. A year ago one of the experts of the Bureau of Plant Industry resigned and accepted a position in a prominent university, where there is excellent opportunity for research work. He does no undergraduate teaching and is a recognized leader of investigation. Recently the writer had the pleasure of inspecting the field experiments of himself and assistants, and discovered as an interesting fact that the principal part of their work is a comparison of varieties or strains. All correlations are discovered in this way, and there will always be new ones to find. In a hundred years from now the trained investigators will still be "comparing cabbages and strawberries."

# Dry Farming The True Conservation

## The Old-New Method Which Applies In All Lands Both East And West

By F. W. MONDELL, President Dry Farming Congress

The term "Dry Farming in its narrower and more restricted sense is applied to the practice of agriculture, and the growth of crops in regions of limited rainfall through conservation of the natural moisture. In the broader sense dry farming embraces the theory and practice of scientific agriculture through which all available plant food is conserved and utilized in such manner as to produce the best, the most certain, and the most continuous results.

Men will differ widely in their views as to just how much territory—measured by its annual rainfall—should be included in the regions where dry farming methods must be utilized in order to secure safe, certain and profitable returns in agriculture. An annual precipitation of 20 inches has sometimes been arbitrarily fixed as a maximum limit of what should be termed "Dry Farming" territory, and it is a fact that many regions of considerable altitude, or of more northerly latitude, and with good drought resistant soils, are safer as farming regions even under ordinary or slipshod methods, than other regions of lower altitude, less drought resistant soils, having a considerably larger precipitation. Moreover, it depends largely on the character and distribution of the rainfall whether or not the maximum benefits may be secured from a certain precipitation. My personal opinion is that no one can afford to farm under ordinary conditions in regions of less than 25 inches rainfall without adopting, to a certain extent at least, those scientific principles of conservation which have come to be classified under the name "Dry Farming."

I am aware that the term we use to describe our operations, methods, and practices has been severely criticized, and, to a certain extent at least, has deprived our movement of the helpful assistance and influence of some good people whom we would like to have with us but who are extremely sensitive lest the region in which they live, and the conditions under which they operate, shall be designated by a term that denotes a minimum of humidity and thus possibly effect settlement and land valuation. We regret the loss and influence of those who feel this way, but we are confident that such a sentiment must, in the nature of things, be more or less temporary. It simply illustrates the hostility that is aroused whenever new or improved methods is proposed.

It is comparative recently that the term "Irrigation" passed from the category of reproach and suspicion to that of favor and commendation. I will recall the time when to say to a homeseeker from the middle states that a certain territory was a good one under irrigation was certain to bring forth expressions of contempt, distrust or disapproval of the practice of irrigation. So when men first began to talk about dry farming there was the same suspicion and distrust in regions where it was frankly admitted climatic conditions either complicated or rendered advisable certain



THE DOUBLE WALLS OF THE HOT BED ARE FILLED WITH HORSE STABLE MANURE OR EARTH.

modification of agricultural practice. Those with lands to sell took note of this frame of mind of the homeseeker and so sought to discourage the movement under a title, which, while confessedly not entirely descriptive of the methods and practices carried on, is at least frank and honest and the most comprehensive title yet suggested.

Fortunately, the objection to the term we are using is passing as the oncoming settler and homeseeker is beginning to realize the many and distinct advantages attending farming operations in what I shall take the liberty of calling "subhumid" region; advantages to a certain extent similar to those enjoyed and appreciated by the irrigationist, including some advantages which the farmer of irrigated lands does not enjoy, and lacking some disadvantages from which he suffers. When these advantages come to be more fully appreciated the dry farmer will be as proud of his title as the irrigationist now is of his. In fact, we have quite reached that point in many regions, and men who are settling western lands tell me that they make much better progress when they frankly state the conditions of climate under which settlers most operate.

In all the years since we began the conquest of the sub-humid lands we have had no such experience as that of the present season. Over a large portion of the territory from the Gulf to the Saskatchewan, from the Coast Range to the Father of Waters we have had an unusual condition of drouth and hot winds. This condition has not been uniform, it is true. Here and there regions have had normal, or approximately normal, conditions.

Taken as a whole, however, our Western country having ordinarily a limited rainfall has suffered from drouth such as has seldom been known.

One would naturally suppose that such conditions as this would have been most disastrous to the dry farmer. To a certain extent this is true, but one who has kept in touch with the dry farming movement, and with the dry farmer, must have been struck with the wonderful spirit of hopefulness and confidence generally prevailing. Wherever I have been, wherever I have met dry farmers, the almost universal sentiment has been: "When we can do as well as we have in such an extraordinarily dry year, we are more confident than ever of the success of dry farming methods."

I am not altogether certain that the present year of drouth, hailstorms and frosts has not been a blessing in disguise, though I admit that the average dry farmer will insist that the disguise is complete. The fact is, for the past few years, it has been found so easy to produce crops without any unusual effort, in a large proportion of our subhumid territory, that men were loath to depart from their old established ways when reasonable crops might be produced without adopting dry farming methods. In other words, many farmers under limited rainfall have been laying up for themselves the wrath that comes to him who is unprepared in a year like this. The men who have come triumphantly, at least hopefully, through the ordeal have been those whose practices were the most thorough and scientific.

The essential can be summed up in a few words—deep plowing to create

a sufficient reservoir; a period for water storage; surface cultivation to conserve the moisture thus stored; careful selection and planting—result a harvest certain and satisfactory. My experience is that the first essential in securing the adoption by the new dry farmer, or the reformed rancher turned farmer, in the sub-humid region, of scientific and practical dry farming methods is to prove to him that in the long run it not only pays, but as a matter of fact, the outlay in time and labor is less in proportion to the results obtained under dry farming methods than under the methods ordinarily practiced in humid regions. And when I say this I have in mind the practice of biennial cropping. I am simply expressing an individual opinion and one with regard to which I realize there are numerous exceptions and qualifications, all of which, however, in my opinion, simply serve to emphasize and prove the virtue of the rule.

Above all things let us preach homemaking on the dry farms. The fact that shade trees, orchard and garden must in many instances be carefully tended in order to produce satisfactory results has a tendency to discourage these valuable adjuncts to homemaking, but dry farming shall be most genuinely successful in proportion as we shall make it a basis of attractive home-making, and this means diversified farming, fruit growing wherever it can be made profitable, planting of trees, growing of vegetables, and the cultivation of a wide variety of crops. All of these are first essentials in the development of any community through dry farming methods.

This is the day of conservation. No one knows exactly what conservation means, but everybody is supposed to be for it, each being left free to frame in his own mind his views and theory of what conservation consists. It being so proper and popular to be for conservation, I congratulate those connected with this movement—for of all the conservation enterprises in the world this dry farming movement is far and away the most practical, the most helpful and the most hopeful.

We are real conservationists in that by conserving the moisture that formerly only produced a sparse growth of grasses, of comparatively little value, we cover the land with homes, orchards, vineyards and fields of waving grain. We conserve the water that otherwise would go rushing across these sub-humid lands, causing floods and creating havoc elsewhere, and hold it in the soil, thus converting the elements of destruction into instruments of production.

Our conservation does not retard and withhold but uses and develops. It involves not the tying up of resources but their utilization. It involves no questionable plan of State or Federal socialism but is a conservation of the most distinctive individualism, far-reaching, wealth producing, health developing, home making, empire building. All hail dry farming! The ideal conservation.

## THE FARM HOT BED

sash slope enough to allow the rain water to run off. To these pieces of studding were nailed boards, thus making a frame which extended about four inches above the ground on the south side and eight inches above the ground on the north side. The earth taken from the pit was banked around these boards and some cross pieces nailed into the framework to prevent the rainfall from leaking through between the sash. The sash cost nothing, the manure nothing but the labor of hauling it, and the lumber was picked up about the place. Practically all the cash that was expended was enough to replace two panes of broken glass in the sash. The early vegetables will soon be ready for the table and the flowers will be ready for transplanting as soon as the outside weather conditions will permit.

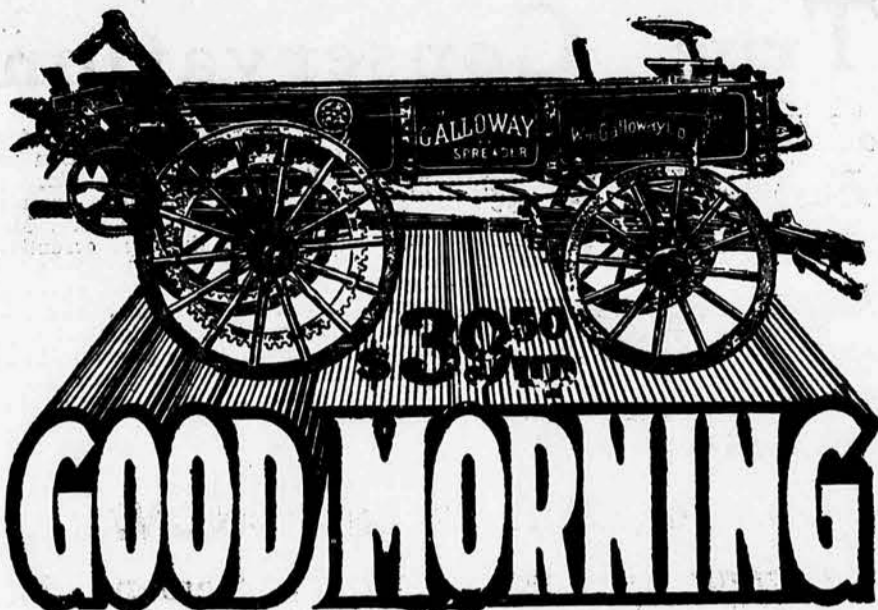
The seeds of lettuce, radishes, onions, parsley, cabbage, cauliflower, pepper, tomatoes and carrots were planted on February 9, and the radishes and lettuce appeared above the

ground four days later. This is later in the season than is necessary, but it so happened that the work of building this new hot bed was delayed because of other duties. In addition to these vegetables there are a very large number of flowers now growing which will be ready for transplanting as soon as seasonable weather arrives. The picture herewith shows something of how the frame may appear, but the following facts must be borne in mind: The frame is intended more for a support to the sash than as a part of the hot bed, though it may be used for both purposes. The newer hot bed just built is two feet deep as before stated, and filled with 18 inches of horse manure and 6 inches of finely pulverized earth, sand and rotted stable manure. A slope is necessary to the frame work in order that the water may run off when the rainfall is heavy, otherwise the seeds will be washed out of the soil or the young plants destroyed.

The size of the hot bed may be de-

termined entirely by the size of the sash that is available for its covering, but a surprising amount of seed can be germinated in a very small area. Of course, if it is desirable to raise early crops of vegetables like lettuce and radishes, a larger hot bed would be needed than if its purpose was merely to germinate the seeds for transplanting. It is always wise to set the hot bed on the south side of a building or some other structure that will protect it from the north wind and after the seeds are sown the greatest care necessary is in giving proper ventilation. It is surprising how hot such a bed will get when the sun is shining and it is necessary to be careful that the water supply is abundant and the hot bed ventilated during the warm hours of the day when the sun shines. One of the hot beds on the writer's place has been in use for a number of years and it has proved so satisfactory that another one was built this spring. Aside from the delicious quality of the early vegetables, which add much to the pleasure of living, there is a very considerable item in the reduction of the cost of food supply.

# THE FARM



How are you today?  
Did you write that postal card to me last night asking for my manure spreader proposition for 1911?

If you didn't, mail it this morning by first post and I WILL SEND YOU 4 Things—All "Corkers" ON THE MANURE SPREADER SUBJECT

They'll Open Your Eyes

- 1—My Four-Color Spreader Catalog
- 2—My New Net Results Bulletin
- 3—My Photographic Spreader Album
- 4—My Sizzling 1911 Announcement

Chock full of Good Stuff

I don't care what prejudiced dealers (who are sore because they can't get from 30 to 50 per cent rake-off) may tell you about my machine. There never was nor is there today a Manure Spreader on the market at any price that will haul as much manure with as little resistance to man and team as the Galloway, and we let you prove this yourself by a THIRTY-DAY TO TWELVE MONTHS FREE TRIAL against the whole field.

In addition to the best Spreader, I have the Best Price Proposition a factory with an annual capacity of 40,000 complete machines can make. Here's what I charge you—my 1911 prices are based on—

- FIRST—The actual cost of material bought in tremendous quantities.
- SECOND—The actual cost of our pay roll every Saturday night.
- THIRD—One very small profit, based on this tremendous quantity and sold direct to you.
- THIRD—One very small profit, based on this tremendous quantity and sold direct to you. That simply is the secret of our low price. I don't need to make much on each one, do I? Figure it out for yourself. I make them all alike on automatic machinery with dies and jigs turning out thousands of perfect pieces all alike with the same operation on huge, expensive machinery, and that's the whole story. When you consider how I make these machines, then the quantity, then the system on which I sell them, there is no wonder that nobody can compete with me, and they never can compete with me unless they make them in the same way and sell them in the same manner. I can sell them to you for less money than some factories can make them at first shop cost.
- Remember, hundreds of people are answering this ad today. Get the literature anyhow and notice its originality.
- You'll be pleased with what I have to tell you on this spreader subject.
- My 1911 offer surpasses all previous offers. I don't care what spreader you are figuring on buying, you can't afford not to get my proposition first.

WM. GALLOWAY CO. 389 GALLOWAY WATERLOO, IOWA

## THE "FLOUR CITY" TRACTOR

WILL PLOW YOUR LAND CHEAPER THAN IT CAN BE DONE BY HORSES OR STEAM

Mandan, N. D., Sept. 25-10.

KINNARD-HAINES CO., Minneapolis, Minn

GENTLEMEN—We bought one of your Flour City Tractors last spring. We used it for breaking, pulling six 14 in. plows. In threshing we pulled a 30-50 in. Separator with wing feeders and blowers and had plenty of power to spare. We are plowing with it now, pulling eight 14 in. plows and the way the engine walks away with them is enough to surprise anyone.

During all this time we have never had any trouble with the engine whatsoever, and I can get more power out of it now than when I got it. If I buy another engine it will be a "Flour City" I think you have got the best of them all.

Yours truly, E. W. HAGEROTT.

The "Flour City" is recognized everywhere as the best designed, best built, strongest and most economical farm tractor made. Write for catalogue showing it in detail, and testimony of satisfied users.

KINNARD-HAINES COMPANY, 846 44th Ave. North, Minneapolis, Minn.

## "WESTERN CHIEF" Sulky or Gang Plow AT WHOLESALE PRICE

By our method of selling at wholesale price to consumer, we can save you the retailers' profits. These "Western Chief" Gang and Sulky Plows are nearer perfection than any other foot-lift plow on the market. They have high lift, foot lift, spring lift and foot trip. These plows have foot lift attached directly to base or crank of plow, making it independent of beam when in action. By means of the balance spring, the plow bottom may be lifted its full height in the frame, and at the same time level the frame by the simple downward push on the foot lever. THE FOOT LEVER is provided with an adjustable break joint, as well as a positive locking device, which securely locks plow bottom in furrow if desired. THE FRAME is of high-carbon steel. MOULDBOARD and SHARE are finest quality soft-center steel. THE FLOW BOTTOM POINT FIRST goes in and comes out of the ground point first. THE SHARE POINTS are reinforced; beams are extra heavy, and the bearings and hubs are DIRT PROOF, making this a very high-grade, satisfactory plow. PRICE, complete, with Pole, Neckyoke, three-horse Evener, Weed Hook and Rolling Coulters, only \$31.85. You cannot buy it from your dealer at anything like as low a price as this. Remember, we guarantee satisfaction or money back. Write for our big free IMPLEMENT CATALOG. All kinds of Farm Implements at Wholesale Prices. Sent on request.



Beam Hitch

Dirty Proof Bearings and Hubs

JONES, POST & CO., Successors to JONES BROS. MERCANTILE CO. 861 HICKORY STREET, KANSAS CITY, MO.

### Locust Posts.

I would like to know which is of more value for posts, the thorn locust or the flowering locust. How do they compare in value with other posts?—B. W. Tempero, Broughton, Kan.

By "thorn locust" we presume the honey locust is meant and by "flowering locust" the black locust is referred to. If our surmise is right there is but little comparison between the two for the purpose named. The black locust is one of the finest woods that grows on the American continent for fence posts or where a very tough or highly polished wood is wanted. Its only objectionable features are to be found in its susceptibility to the attacks of borers and other insects while growing and its liability to "check" in seasoning. The other family of locust trees of which the coffee bean is an example is a softer and much less valuable wood. If a little advice would be permitted here we would suggest that neither of the locust trees be planted. We would plant Catalpa speciosa provided we could get it true to name. It grows much faster than locust, is not bothered by insect pests, lasts as long when used as posts, will not "check" and loosen the fence staples, has no thorns and is by long odds the best and most useful American tree for artificial culture. Care must be taken to get the right kind, however, as the other species of catalpa are worthless. Kansas has the largest nursery of Catalpa speciosa in the world and one does not need to go far to get the genuine article.

### The Tenants Side.

I am a renter who pays a high cash rental for 160 acres. I am interested in your discussion of the landlord and tenant question. I say keep after the landlord till they furnish hog pastures and houses. I have neither hog house, pasture nor tool shed. I came from the east where they rotate crops and I have farmed here one year, kept down the weeds, raised a good crop and put brush and straw in all the washes. The landlord told others that I am the best renter he ever had but he raised the rent \$50 and will not improve the place though he is one of the nicest men I ever met. I think this is a fair example of all large land owners.—H. C. Brittingham, Paola, Kan.

The present system of renting farm land on 1 year leases is simply financial suicide. It is not fair to either landlord or tenant. The landlord suffers by having his placed skinned

He cannot afford to distribute manure on the fields as he would get no benefit from it. He cannot afford to plant anything but annual crops, no orchards, no shrubs, no flowers, no alfalfa, no grass, for the same reason. And yet these things would not only serve to make the farm more readily saleable but would be for its future good. The landlord would make more money each year, secure a better class of tenants and have his land more valuable in the end if he would adopt the long term lease and cooperate with his tenants.

### Co-Operation in Building Silos.

Five farmers in the neighborhood of Litchfield, Minn., co-operated and purchased building material in large quantities. They united and aided each other in erecting a stave silo on each of their farms. The following is the cost of material and labor in building one of these, on the farm of Gilbert Gorgenson, who furnished these figures:

|  |          |
|--|----------|
| The silo is 36 feet in height and 16 feet in diameter. |          |
| 116 pieces 2x6, 30 ft., Washington price.....          | \$111.34 |
| 26 pieces 1x12, 12 ft.....                             | 10.43    |
| Ripping boards corner to corner, for roof.....         | 5.00     |
| 10 3-16 in. hoops, 54 ft.....                          | 25.00    |
| 4 pieces 2x4, 18 ft. rafters.....                      | 1.24     |
| Other lumber.....                                      | 7.00     |
| Cement for foundation.....                             | 15.00    |
| Labor in cement.....                                   | 15.00    |
| Carpentry, 10 1/2 days, at \$2.25..                    | 23.25    |
| Common labor, excavation and raising ..                | 7.11     |
| Paint.....   | 6.80     |
| Labor of painting (3 coats)..                          | 5.00     |
| Hardware.....  | 1.94     |

Total ..... \$228.71

This is the actual cost of the silo complete. The real cash outlay did not exceed \$200, as Mr. Gorgenson and boys did most of the carpentry, painting and common labor themselves. Staging was either returned or used on the farm; so no account is made of same, except labor.

To have the above silo built by contract today would cost about \$275.

### Some Kansas Jerseys.

I have at present 35 head of pure bred Jerseys, all from sires whose dams have records of 18 pounds of butter per week or over.

In the management of my herd I feed corn fodder, oats straw and alfalfa hay. For grain ration I grind the corn and cob together which we think makes a well balanced ration. I feed



PART OF JERSEY HERD OWNED BY MRS. FRENCH, MARION, KAN.

each year while the tenant does not get a fair return for his labors because of this handicap. Two things stand in the way of a betterment of this condition and they are both within the power of the landlord to correct. In the first place most of the land that is now rented, is for sale and the landlord will not make a long term lease for fear it will interfere with a possible sale. In the second place, the short term lease compels the tenant to get the most he can out of the place during his lease with no regard to the upkeep of the property.

the calves by hand after the first 48 hours. I give them whole milk the first month, then substitute separator milk gradually until I have them entirely on a diet of separator milk to which I add a grain ration of corn chop and bran or ground oats. The ration with plenty of alfalfa hay serves to give them a balanced ration on which they do well.

I vaccinate all my calves with blackleg before turning them on grass in the spring and have not lost a calf with blackleg for six years.—Mrs. C. French, Marion, Kan.

# \$1,000 FOR BEST LETTERS

## on "HOW FARMERS CAN MAKE MONEY WITH GASOLINE ENGINES"

Write to Fuller & Johnson Mfg. Co. for Full Details—NOW!

Farmers all over this country are just *beginning* to wake up to the tremendous money-making possibilities of high-grade gasoline engines. Yet not one farmer in a hundred fully realizes the importance and *money-value* of these aids to successful and more profitable farming, when applied to his own work on his own farm.

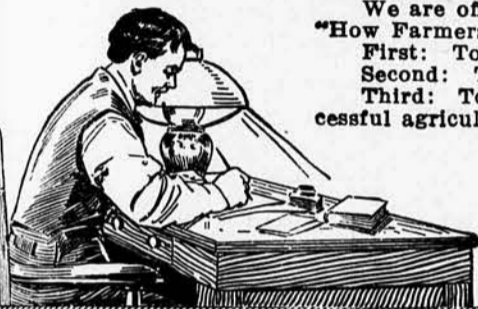
Good gasoline engines are mechanical marvels which mean immensely increased farm production, multiplied farm profits, a higher standard of living and vast savings in labor and wages.

We are offering \$1,000 in cash prizes in order to get together the best ideas of practical farmers and farmers' sons on "How Farmers Can Make Money With Gasoline Engines." Our object is threefold:

First: To stimulate widespread interest in the subject of the profitable use of gasoline engines.

Second: To widen the field for gasoline engines by learning of every possible use to which they are and can be applied.

Third: To familiarize farmers everywhere with the merits of Fuller & Johnson Double-Efficiency Engines, the most successful agricultural engines ever designed or built. We are willing to pay big money for new and useful ideas.



## The Most Intensely, Vitally Interesting Subject Before the Modern Farmer

Your letter may be the one to win the Grand Prize. Don't you think \$300 in cash is pretty good pay for merely writing a letter?

And there are *sixty-one* cash prizes in all, making a grand total of ONE THOUSAND DOLLARS which we are going to distribute to those who write the sixty-one best letters on this fascinating and important subject. The eminent men who have consented to act as judges insure absolute fairness to every contestant.

Whether or not your letter wins a prize, it will be worth a great deal of money to you to thoroughly investigate this great question. You will be astonished to find how the gasoline engine opens up a new world of possibilities. You will find all about your opportunities for *more profit* which had been entirely overlooked.

## Costs Nothing to Enter the Contest!

There are absolutely no restrictions as to who may take part in this contest except that contestants must be farmers or the sons of farmers working on the farm. What we want is IDEAS, expressed in your own way—without regard to literary style. You need not be an engine owner. The facts you give may be based on observation or experience.

We want ideas that are practical and valuable. It makes no difference what engine you have studied or worked with in gaining the information. It costs you nothing to *try*—and we *urge* you to "get in the game."

### A Nation-Wide Educational Campaign on the Money-Making Possibilities of Gasoline Engines

We have started this far-reaching educational campaign for the benefit of the farmers and the entire gasoline engine industry.

It will focus the attention of the agricultural world on the value of engines as labor-savers and wealth-producers. It will uncover countless unusual uses to which engines may be applied and prove of tremendous benefit to the farmers of this country.

# \$1,000 Cash Prizes

for Letters on "How Farmers Can Make Money With Gasoline Engines"

|  |                |
|--|----------------|
| Grand Prize . . . . .                  | \$300          |
| Second Prize . . . . .                 | 200            |
| Third Prize . . . . .                  | 100            |
| Fourth Prize . . . . .                 | 75             |
| Fifth Prize . . . . .                  | 50             |
| Sixth Prize . . . . .                  | 25             |
| Ten Prizes, \$10 each . . . . .        | 100            |
| Twenty Prizes, \$5 each . . . . .      | 100            |
| Twenty-five Prizes, \$2 each . . . . . | 50             |
| <b>GRAND TOTAL . . . . .</b>           | <b>\$1,000</b> |

Any farmer or farmer's son working on the farm can compete for these splendid prizes. No expense or obligation incurred. Not necessary to be an engine owner to enter the contest. Ideas are what count, not literary style or grammatical correctness. Write just as you would talk, in everyday language. Letters must contain at least 500 words, and not to exceed 1,000 words.

### JUDGES

We are pleased to announce that the editors of leading agricultural papers have accepted appointment as judges of all letters sent us. This guarantees every contestant that the letter submitted will be judged strictly on their practical value and without any favor being shown any person.

The contest closes May 1st, the time having been extended at the urgent request of many busy farmers. Write at once for special Circular giving full details of the great \$1,000 Cash Prize Offers.



# FULLER & JOHNSON Double-Efficiency FARM ENGINES

Every Farmer Ought to Own a "FULLER & JOHNSON" Let Us Tell You How to Get One at Lowest Price Possible

Fuller & Johnson Farm Engines are famous for Double-Efficiency. The value per dollar being the greatest offered by any engine concern, makes our prices extremely low, and the value of our product correspondingly high. Our business was established in 1840. The great engine works of Fuller & Johnson have the most up-to-date and complete engine building equipment in the United States.

They are manned by experts whose training and skill is unequalled in the engine industry. Our engines have won the foremost place in the favor of power users. The man who owns a "Fuller & Johnson" has the best that money can buy. Write us and we will tell you how to get a "Fuller & Johnson" from our nearest dealer at surprisingly low cost, quality considered, carrying with it the broad and liberal guarantee of the maker.

### FULLER & JOHNSON ENGINES ABSOLUTELY UNEXCELLED

Fuller & Johnson Double-Efficiency Engines are sold at the lowest prices consistent with the high quality which has won their world-wide reputation. We build seven sizes—3, 5, 7, 9, 12, 15 and 18 H. P.—mounted or unmounted. Whatever your requirements may be, we have an engine to meet them. You cannot make an investment that will yield greater dividends year after year. Thousands of farmers, in every state in the Union, consider the "Fuller & Johnson" the ONLY Engine for farm use. Its high efficiency and matchless simplicity; its "frost-proof," "dust-proof," "trouble-proof" features have made it supreme among farm engines.

### SEND COUPON FOR FREE ENGINE BOOKS AND \$1,000 PRIZE OFFER!

Get in line for a big cash prize! The coupon or a letter or postal card brings full particulars of big \$1,000 letter-writing contest and our valuable Engine Books.

You can't spend a little time to better advantage than in looking into this subject, "How Farmers Can Make Money With Gasoline Engines."

Whether you are ready to buy an engine or not, get posted on Fuller & Johnson Double-Efficiency Engines NOW. If you haven't yet sent for the catalog of our wonderful little Farm Pump Engine, ask for a free copy today. Somebody is going to pick up every one of the cash prizes—why not be one of the winners. Don't let the "other fellow" beat you to it. Get busy with a pencil right this minute!

FULLER & JOHNSON MFG CO.

102 Knight St., Madison, Wis.

Established 1840.



FULLER & JOHNSON MFG. CO., 102 Knight St., Madison, Wis.  
 Gentlemen: Please send at once full details of \$1,000 Cash Prize Offers, and Free Engine Books  
 I am particularly interested in the Double-Efficiency Engine   
 My Name   
 P. O. \_\_\_\_\_  
 State \_\_\_\_\_ R. F. D. \_\_\_\_\_  
 We want more responsible dealers.

# LIVE STOCK



That there is a real shortage of hogs and that farmers and breeders can not "catch up" within the next two years or more is self evident even though conditions remain the same as they now are. But these conditions are changing and meat, especially pork, is an essential element of our food, so that it is not likely that hog prices will ever become low again. There will probably be a decided change within the next 90 days and the man who is prepared by having good hogs for sale will be lucky.

### Berkshires to the Fore.

Last year Kansas sold 710 registered Berkshire hogs and thus placed herself second in the list of states. New York was the only state that sold more Berkshires during 1910 than Kansas.

Some people seem to think that the Berkshire is not as popular as some of the other breeds of hogs when the facts are that the breeders can not supply the demand for them. They are perhaps not so numerous in this country as are some of the other breeds but of their popularity there can be no doubt.

### American National Live Stock Association.

The American National Live Stock Association counted its fourteenth annual convention, which was recently held at Fort Worth, Texas, as the most successful one in its history. A splendid program was presented, and every effort put forth by the officers to bring the success to which this great association is entitled. Very much of the federal legislation which has been enacted in recent years in favor of the live stock interests of the west, has been brought about by the untiring efforts of the officers of this association. Their work has resulted in good, not only in direct legislation in behalf of the interests they represent, but in the prevention of adverse legislation, which is equally important. The land lease system under which the ranch men and range men of the west have access to the forest reserves for pasture purposes, was at one time a difficult question, which was settled in a satisfactory manner to all concerned by the activities of these same officers.

At the Fort Worth meeting a series of resolutions was passed endorsing the creation of a permanent, non-partisan tariff commission, endorsing the work of the Department of Agriculture and the administration of the national forests; urging the fencing of reservoirs on public lands, the sinking of wells in desert places, federal control of unappropriated, semi-arid grazing lands, the classification of public grazing lands, and the exclusion of all diseased animals from live stock exhibitions.

Unfortunately, the dates of the meeting of this association have been in conflict for some time past with the dates of the Kansas Improved Stock Breeders Association, and the secretaries of these two bodies are now arranging for a suitable adjustment of this matter.

Murdo MacKenzie of Trinidad, Colo., was elected president; T. W. Tomlinson, 909 Seventeenth Street, Denver, Colo., secretary; Sam H. Cowan, Fort Worth, Texas, attorney, and I. D. Graham, Topeka; T. M. Potter, Peabody; W. J. Tod, Maple Hill; and Andrew Pringle, Eskridge, were appointed members of the executive committee for Kansas.

### Feeding Hay to Hogs.

At the Kansas Experiment Station the writer divided a number of hogs into two equal lots and fattened one lot on all the grain they would eat and the other lot on all the grain and dry alfalfa hay they would eat.

For every 100 pounds gained by the hogs fattened on grain alone, the hogs fed alfalfa hay and grain gained 173 pounds. The hogs showed a gain of 863 pounds of pork per ton of alfalfa hay fed. The same weight of grain

that was worth \$1 fed alone brought \$1.40 when fed with the alfalfa.

At the Nebraska Experiment Station hogs fattened on grain alone made corn worth 77 cents a bushel and when alfalfa hay was fed with the grain the corn brought \$1 per bushel.

In a careful experiment made by Prof. R. J. Kinzer at the Kansas Experiment Station with fattening hogs fed corn and alfalfa hay 100 pounds of alfalfa hay saved 96 pounds of corn, and he estimated that 1,520 pounds of pork was produced from the alfalfa hay from each acre.

Alfalfa hay is particularly valuable as a winter feed for brood sows. It saves more than half the grain. A mature brood sow fed all the alfalfa hay she will eat does not need over two to four pounds of grain a day. The alfalfa furnishes in abundance the bone and muscle making materials needed for the strong development of the unborn pigs. The sow fed alfalfa hay does not suffer from constipation as does the one fed grain alone and the hay stimulates the milk yield.

Growing pigs should have constant access to alfalfa hay whenever pasture can not be furnished. It saves grain, lessens the cost of feeding, furnishes exactly the materials needed for developing bone, muscle and the vital organs, makes more of the grain digestible, stimulates the appetite and keeps the bowels active.

Alfalfa is much the best hay for hogs, although the hay from any legume makes profitable hog feed—such from Canadian field peas, the clover, cow peas and peanuts. Hay from the othy red top and similar grasses has little value as hog feed. The leaves of early cut corn fodder cured green and sorgham cut when the seeds are in milk make good hay for hogs, although not nearly equal in feeding value to the hays previously recommended.

The leaf of the hay is the valuable part for the hog feed, the stems are too woody and are detrimental to the plant which is used to make hay for hogs. The plant should be cut when it has the most leaves and is in the best feeding condition and the hay cured in a way to preserve the leaves as green and fresh as possible.

In tests made by the writer at the Kansas Experiment Station when hogs are fattened on grain and alfalfa hay, 868 pounds of gain was put on the hogs per ton of hay with alfalfa cut when the first bloom appeared and only 333 pounds of gain per ton of hay when the alfalfa was cut late. The late cut alfalfa had lost many of its leaves before being gathered.

Fattening hogs need only a moderate quantity of hay, enough so that they will consume seven to eight pounds of leaves with each bushel of grain. Breeding hogs and growing pigs should have every day when on pasture, all they hay they will eat consuming the leaves only.

Hog raisers are often advised to cut or grind the hay or to cut and soak it. The hay should be fed whole and dry. Both cutting and soaking more or less of the stems are detrimental and are detrimental to the other feeds. In a careful test conducted by the writer there was a loss of over four per cent from grinding alfalfa hay for hogs.

The hay can be fed daily in shallow flat troughs. The most convenient way is to feed it in a portable rack. With either method, the stems should be thrown out every day and may be fed to either cattle or horses.

The rack is made of 1x4 inch studs. It is three feet high, six feet long, sixteen inches wide. The top is open at the ends solid, and the 4-inch studs have 4-inch spaces between them. The trough is four inches deep and extends seven inches beyond the bottom of the rack.—H. M. Cottrell, formerly of K. S. A. C.

A mean old thing says that married men always get better quarters than bachelors get better quarters.

## Have You Written For Your "NATIONAL" Style Book

Are you waiting? Have you postponed writing? Are you likely to forget—that we have one "NATIONAL" Spring Style Book put away for you? Then let us repeat that one "NATIONAL" Spring Style Book is **Your very own**, because we have reserved books for every reader of this publication. And we have taken this page in your magazine simply to tell you about this very wonderful new Style Book.

Every page of this 224-page book will prove to be a page of interest, and of beauty, of style instruction, of fashion opportunity, and of money saving. It shows you all the new styles in all kinds of apparel for Women, Misses and Children—and all at **money-saving prices**.

Copyright, 1921, National Cloak & Suit Co.

It shows you  
Lingerie Dresses - \$3.98 to \$19.98  
Silk Dresses - \$11.98 to \$22.50  
Waists - 98 cents to \$8.98  
Skirts - \$3.98 to \$14.98  
Hats - \$1.98 to \$14.98

## And "NATIONAL" Tailored Suits Made-to-Measure from \$15 to \$40

It is the most interesting Style Book ever published.

Pure Linen  
Hand-Embroidered Waist  
Regular Price, \$1.75

# Price, \$1.00

Postage Prepaid By Us.

No. 2161 There are seven notable points about this beautiful waist.

First it is **pure linen**. Yes, Madam, we mean Pure Imported Irish Linen. It is Hand-embroidered—guaranteed—and prettily and neatly done. It is lace-trimmed as pictured, and it is one of the very newest and most delightful styles.

It is a regular \$1.75 waist, now offered at a friend-making price of \$1.00. And we pay the postage.

Fact No. 8 is, that if you are not delighted with this waist—if you don't think it actually cheap at \$1.75, send it back at our expense, and we will refund your money. The charming style feature of this model is the simulated front closing in effective point design, trimmed with lace insertion and a ruffle of edging, further enriched with Irish crochet buttons and hand embroidery. A yoke effect is formed of pin-tucks and wide tucks on the shoulders. The back, which closes invisibly, has clusters of pin-tucks, and the fashionable sleeves are tucked and lace-trimmed to form deep cuffs. A lace-trimmed high collar completes this very becoming waist. **SIZES: 32 to 44 bust. White only.**

Worth anywhere \$1.75.

Special Price, \$1.00

Be Sure to State Size Desired.

**NATIONAL CLOAK & SUIT CO.**, 257 West 24th Street, NEW YORK CITY

No Agents or Branches

Mail Orders Only



## 33 YEARS OF SUCCESS



Get Our Book Free

ROLLER-BEARING  
LIGHT DRAFT

## SUCCESS SPREADER

The only spreader with a 33-year record of good work. Simplicity, Durability and Light Draft always foremost. Direct Chain Drive. No Cog Gears. The choice of men who investigate thoroughly. Wood or metal wheels. A generation of experience back of every Success. The leader from the first. Exclusive features all patented. Catalog of facts Free. Write us promptly.

**Marseilles Company, East Moline, Ill.**

## Cabbage Weighing 24 Pounds in March

raised in Southern Alabama, Western Florida and along the Gulf Coast, with shipping season commencing early in March, and commanding from \$2.00 to \$2.50 per crate at shipping point. This same land then planted in sweet potatoes will yield \$100 to \$150 per acre, and, in addition, an excellent forage crop, making

### 3 Crops a Season From Same Land

No long winters, but an average of 312 working days a year. Stock needs little protection and thrives on grazing alone and with an abundance of good water. Send for our booklets and read of the actual experiences of former Northern and Western farmers who are rapidly becoming rich off the fertile lands of Alabama, Georgia, Tennessee, Mississippi and Western Florida.

Low round-trip rates 1st and 3d Tuesdays each month

G. A. PARK, Gen'l Immigration and Industrial Agent  
Louisville & Nashville R. R. Room 212 Louisville, Ky.





A man is known by the dogs he keeps. A mean man keeps a savage dog, a worthless one a hound, a lazy one a poodle, but an up to date business man keeps none.

Think it is good business to put all of your money in the bank and then neglect needed repairs about the place? Wouldn't a coat of paint pay as good interest as does the bank?

Away back in 1840 the statistics showed that this country was possessed of about a hog and a half for each man, woman and child. This proportion has been gradually changing until there is now less than 1/2 hog for each, but these figures are not really so startling as they at first appear. Statistics of this kind have little value now as, even with the same number of breeding hogs on the farm that our fathers had, our pork producing capacity is more than doubled.

**The Berkshire Futurity.**

In preparation for a Kansas Berkshire futurity the secretary of the Kansas Berkshire Association sent out letters to each of the 300 Berkshire owners of Kansas and asked them whether they desired a futurity and if so at what point it should be held. Not all of those to whom these letters were sent responded but the unanimity of the answers received was surprising. All voted in favor of the holdings of a futurity and all but one voted in favor of holding it at the Topeka State Fair.

**The Percheron Merger.**

By recent action of those interested the Percheron Society of America has absorbed the Percheron Registry Company. Under this friendly agreement the members of the Percheron Registry Co. will receive shares of stock in the Percheron Society of America and all records made by the former will be accepted by the latter. This is a complete merger of the Percheron interests as represented by these two associations and will undoubtedly prove of vast benefit to the friends of this breed generally. Wayne Dinsmore, Live Stock Record Building, Chicago, is secretary.

A buyer of a breeding animal should always see him before the purchase. No matter how honest the breeder and seller may be and no matter how careful he may be in his description, there may be points which can only be decided with satisfaction to both parties by a careful inspection from the view points of both the buyer and seller. The animal may be all right and all that is claimed for him and yet, because of his different viewpoint, the buyer may not be entirely satisfied unless he sees him beforehand. Expert fieldmen are to be trusted with buying commissions and their work is rarely criticised, and yet they can not see with the eyes of the prospective owner. The few dollars expense necessary to attend a good sale may be added onto the cost of the animal purchased and, if he is satisfactory, he will still be cheap. In many cases the expert fieldman can buy better than can the customer but even then it is often wise to attend the sale in company with the fieldman. The education is worth something.

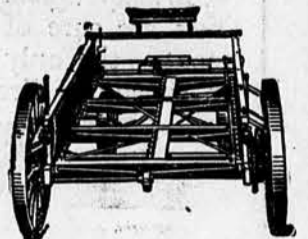


**Buy an Appleton Manure Spreader**

WITH ITS SOLID OAK FRAME.

The frame is the foundation of a manure spreader—it must stay square and level or the machinery parts will soon stop working right. Our frame is made of solid oak—every piece is carefully selected, every piece well seasoned. It is braced and trussed by steel rods, so that it is always square and always level, all the time and under all conditions. There is no other wood as good as oak for this purpose, and there is absolutely no other frame equal to the Appleton. See the picture—that will convince any practical man.

**The Frame That's Always on the Square.**  
Here's a combination of the toughest wood, the strongest metal and common sense.



The all oak frame. Steel braced and Steel trussed.

**THE APPLETON FRAME STANDS THE STRAIN.**

**A BOY CAN RUN IT**

Made with RETURN OR ENDLESS APRON

The Appleton Spreader is easy to load, haul; spreads thinly or thickly and always evenly, from start to finish; has positive force feed; pulverizes thoroughly; doesn't bunch; has a changeable feed, operated without stopping the team; automatically balances the load; is so simple of construction and so easily operated that any boy, who can drive a team, can run it.

Send for FREE Catalog.

So confident are we that our machine will stand on its merits, that we guarantee the Appleton Manure Spreader to be, and to do, all that we claim for it in our spreader book. This book of facts is free to you. Send for it today.

**APPLETON MFG. CO. 219 Fargo St., Batavia, Ill.**

Branches: Minneapolis, Minn. Kansas City, Mo. Council Bluffs, Ia.



**"Tongueless" 12-16 Disc Harrow ONLY \$22.95**

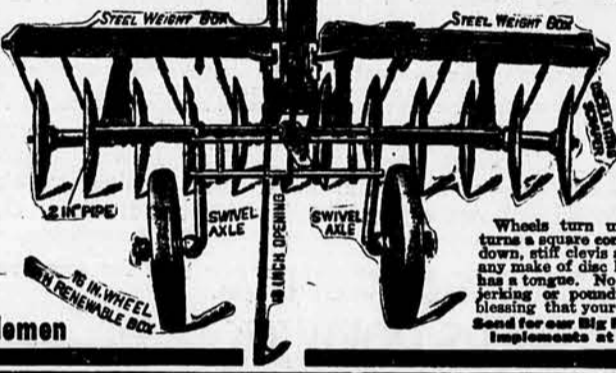
Our Disc Harrow is the celebrated Bud-long-LaDow pattern, and superior, we believe to any Disc Harrow on the market. Made entirely of iron and steel, with steel weight boxes, heavy standards, with oil tubes reaching to the top and oil holes protected by spring covers, making our boxes dust proof. We guarantee our disc boxes for two years under all conditions and will replace them free. They will last for many years if properly taken care of. We can plow the hardest ground. Impossible for our disc to buckle up in the center. Our Oscillating Spring Scraper, conceded to be the best scraper on earth, covers the blade from center to circumference, and absolutely controlled by the foot. Address

**Hapgood Plow Company Box 711, Alton, Ill.**

The Only Plow Factory in the World Selling Direct to the Farmer at Wholesale Prices  
**Factory to Farm—No Agents, No Middlemen**

**Disc Harrow 12-16 Only \$15.25**

Our Prices are Lower Than Any Factory in the U. S. Our Tongueless Attachment is made of steel and iron; 15 inch tread, 16 inch in diameter, and each wheel hung on its own pivoted axle, leaving a clear space of 18 inches between the ground and the stub tongue, the only one made that enables you to straddle a corn ridge. Our Tongue Attachment, is a practical article for use on side hills or in transporting the machine over hills and rough ground.



Wheels turn under the tongue, and turns a square corner. Adjustable up and down, stiff clevis and can be attached to any make of disc harrow you have that has a tongue. No neck or side draft—no jerking or pounding of the tongue, a blessing that your horses will appreciate. Send for our Big Free Catalogue, 1,000 Implements at Wholesale Prices.

**Years of Grand Results**

Eckerty, Indiana May 21, 1909. Dr. B. J. Kendall Co., I have used your remedies with grand results for ten years, and would not be without them. Wm. H. Tucker.



**Kendall's Spavin Cure**

Keeps legs sound and trim as no other preparation has ever been known to do. The sure, quick remedy for Spavin, Ringbone, Splint, Curb, Swollen Joints and all Lameness. Equally famed as household remedy. At druggists, \$1 a bottle. Get free book, "A Treatise on the Horse," or write to—**DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.**

**BROWN FENCE**

**Rust Proof - Bull Strong**  
Fences for horses, cattle, sheep, hogs, chickens, etc. 160 styles. **BARGAIN PRICES: 14 Cents Per Rod Up.** We pay the freight. Lawn Fences and Gates. Free catalog and sample. **The Brown Fence & Wire Co., DEPT. 39 CLEVELAND, OHIO**

**KEEP YOUR STABLES, KENNELS & CHICKEN HOUSES DISEASE-FREE**

An occasional disinfection with Formaldehyde will keep your stock houses free from disease-producing germs—surely and at little cost. Experience is unnecessary—a child can apply Formaldehyde by following the directions contained in the booklet which we will send free on application. This method endorsed by U. S. Dept. of Agriculture. Full directions for treating seed grain as well—write today.

**PERTH ANBOY CHEMICAL COMPANY**  
100 WILLIAM STREET, NEW YORK

**ONE MAN HAY PRESS**

ONE OR TWO-HORSE, AND GASOLINE BELT POWER. Self-Feeder, Self-Thresher and Knottter. All Steel, full circle. Guaranteed 1 ton an hour with ONE OPERATOR, 1 1/2 tons an hour with two men. FREE trial. Write **TUTTLE HAY PRESS CO., 621 S. Adams St., Kansas City, Kan.**

**IMPERIAL CLOD CRUSHER and ROLLER Leads Them All.**



Send for The Peterson Mfg. Co. Circulars

**Much Less Than You Thought For Your Next Wagon**

The amount of money you will save depends on the size and style of the wagon you need and sell more farm wagons than any one else, have the largest factory, hold the highest reputation and are given the highest commercial rating listed. Millions of dollars will be saved to the farmers in the future by our direct selling method—save YOUR share NOW. Write for our prices, freight prepaid, and our large, free wagon book. Learn why we, the largest manufacturers of wagons in the world, with over \$2,000,000.00 working capital, make this remarkable offer on

**"Old Hickory" and "Tennessee" Wagons**

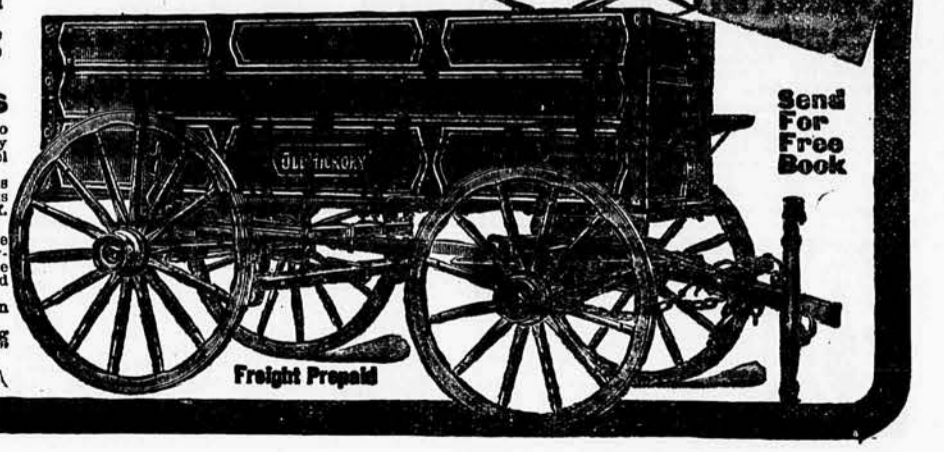
300,000 of these wagons have been sold. No wagons ever gained a greater reputation. Because no better wagon has ever been made—no wagon has ever been made better. Choice lumber money can buy seasoned for years in our own yard—selected and re-selected—inspected and re-inspected. Iron and steel are heavier than the ordinary, every detail beyond practical improvements.

**4 Weeks' Free Trial and 2-Year Guarantee** If the wagon you choose doesn't show you a big saving to you under the law for two full years if you keep the wagon. If anything is wrong, new parts free and delivered free, or all your money back. That's the law of it for two years.

Send Us Word At Once—Just your name and address on a postal, so we can get this surprising proposition into your hands. No matter where you live, don't put a dollar in a wagon until you get our offer. We have had the trade of dealers for over 30 years and in making this radical change in our selling method we will be fair to them as well as to you by filling first orders out of their stocks of "Old Hickory" and "Tennessee" wagons if they consent to let us do so. Address

**KENTUCKY WAGON MFG. CO., (Inc.) Office 242 W. "K" St., Louisville, Ky.**

World's Largest Wagon Factory Will Now Sell You the Best Wagon Built at Wholesale Factory Price. Freight Prepaid—on Free Trial and Long Guarantee. and the locality in which you reside. We make



Send For Free Book

Freight Prepaid

# DAVID BRADLEY

THERE is no drudgery on the farm equipped with David Bradley implements. There is a joy in plowing with a perfect tool. The science and skill of David Bradley have been making prosperous and happy farmers for eighty years.

Bradley Quality is the standard at which all others aim. You are sure of getting it only in David Bradley implements—the only standard implements sold from factory to consumer direct at one-profit prices.



DAVID BRADLEY IDEAL \$15.95 UP DISC HARROWS.

Made in all sizes; solid or cut out; 16, 18 and 20-inch discs, with tongue or tongueless with the celebrated Bradley oscillating tongue truck.

The Strongest and Most Up to Date Disc Harrow Money Can Buy.

Strong truss steel frame with levers conveniently placed; connecting bars from levers to discs run under a heavy steel adjustable yoke, holding discs level to cut a uniform depth.

Oscillating spring

steel scrapers, operated by foot levers, clean the entire disc. Throw-off levers on each scraper section enable the operator to raise scraper from discs at any time with team in motion. Saves wear and lightens draft when scrapers are not needed.

Disc bearings run in dustproof oil soaked maple lined boxings, with oil tubes extending up through one-piece pressed steel weight boxes.

Discs are finest quality steel, sharp and specially tempered to hold an edge, but not so brittle as to break.

The Bradley Patent Spring Seat Post makes the Ideal the easiest riding of all disc harrows. Saves driver the jolt and jar common to other makes, while the low down hitch relieves team of neck weight. The most humane tool of its kind for both man and team.

Refer to our big General Catalog for pictures, complete descriptions and prices of David Bradley Plows, Harrows, Planters, Cultivators, etc., the farm tools backed by eighty years of knowing how; or send today for our Book of David Bradley Farm Implements.

We can always supply promptly any repair part for any Bradley implement, no matter when or where bought.

SEARS, ROEBUCK AND CO CHICAGO

## The GRANGE

Cooperative Buying and Associated Selling.

Each subordinate grange in Kansas should study and investigate cooperative buying in all its features during the remainder of this winter season, for soon the busy days will be here and our study time will be gone.

When large quantities of certain commodities are disposed of direct to the consumer then there is a consumer's profit and Patrons are so organized that oftentimes advantage may be taken of the market and other circumstances and carload lots may be purchased and a great saving made to the purchasers.

Our merchants buy where they can buy the cheapest, quality considered. Why not us?

This need not alarm your merchant for the number of articles which we can buy in carloads is quite limited.

In selling oftentimes a car of cattle or hogs will bring more per pound than if sold in smaller lots. Neighbors, now that communication by phone is accessible to all, can very quickly find out what there is in the neighborhood for sale and combine these products to sell to a better advantage at home or have as good a chance as before to ship.

When we can make a close or even correct estimate as to what it costs to produce the articles which we have to sell then we will be able to fix a selling price the same as all other manufacturers who when a finished product is turned out must figure on the cost and then fix the price at which he must sell to make a profit, whereas the prices of our products are often made by the other fellow and he seldom gets them too high.

Let us organize and get our neighbor to come in too. Many of the evils can be overcome by organization. Let us organize.

### What the Grange Has Accomplished.

The work of the Grange is of such a nature that its greatest accomplishments can never be cited only in a general way. We may state how many dollars have been saved to the farmers of the country through cooperative trade arrangements and through mutual insurance companies, both fire and life, and something definite can be stated in regard to the vast saving to the farmers of the country through wise legislation secured, and unwise legislation defeated through the influence of the Grange; but when we undertake to make any estimate of the moral, social, and mental development that has been brought to the farmer and his family through Grange influence and Grange teaching, we are lost in the magnificent results obtained. It is absolutely impossible to give any intelligent estimate of the development of the noble principles of manhood and womanhood in the mind and heart of the million of people that have been connected with this order, and of the millions of other people with whom they have been associated. It is along this line that the grandest results have been achieved. Thousands of farm homes have been made happier and better, and the members of farmers' families have been reaping the highest enjoyments of life through the quickened mental abilities by Grange influence, while a higher ideal in life has been reached through the development of the heart by true Grange teaching. With these general statements, we leave the most important results during thirty-two years of Grange work to the imagination of our readers.

In matters of legislation, among the first objects to claim the attention and engage the efforts of the Grange were the state agricultural colleges of the country, many of which in their early days were united with, and became a part of classical colleges and universities, then in a large measure destroying their identity as agricultural colleges, and rendering them practically worthless for the objects for which they were established.

Through the influence of the Grange a separation has been effected in a majority of states, and distinct agricultural and mechanical colleges have been established. In most of those states where the efforts for a separation have not been successful, the college authorities have been forced to give much greater recognition to agriculture, and with but few

## DR. HESS DIP and Disinfectant

keeps farm stock healthy. It stands as a guard against infectious animal diseases which sometimes sweep a community in epidemic form. You've no reason to dread hog cholera, infectious pneumonia, mange or other germ disease of live stock if you use Dr. Hess Dip and Disinfectant as a preventive.

It meets the government requirements as an official dip for sheep scab, also cures foot rot and kills sheep ticks.



It destroys lice on cattle, poultry and swine. It kills unwholesome odors from whatever cause and makes farm buildings sanitary. Cost is trifling—benefits great. Write for free booklet.

DR. HESS & CLARK, Ashland, Ohio.

## JOHN DEERE ENGINE PLOWS



- 6 Wholesale Farming More Work at Less Cost
- 8 You wouldn't think of plowing with one horse. You can make more out of your time working three or four horses.
- 10 You would work twenty or thirty horses if you could. You can get better results with an engine and a John Deere Engine Plow. Plowing done faster, better and cheaper than with horses.

DEERE & COMPANY MOLINE, ILLINOIS

EVERY LOCAL GRANGE should have a seal, make special order and have a guarantee pocket size.

J. C. DARLING COMPANY RUBBER STAMPS, SEALS AND STENCILS Get Our Large Catalogue. TOPEKA, KAN.

The Standard Oblique Tooth Is the real thing in GARDEN RAKES and costs no more than others. Ask your dealer for it. If he does not handle it send us his name and we will send you free our descriptive catalogue. STANDARD EARTH AUGER CO. 1228-A Newport Ave., Chicago

## YOU OWE IT TO YOUR HORSES

to clip them before you put them at the hard spring work. Clipped horses sweat less, they dry off quicker at night, they get better rest and their food does them more good. They come out in the morning refreshed and fit for a better day's work.

### Anyone Can Clip a Horse Stewart Ball Bearing Clipping Machine

AND DO IT RAPIDLY WITH A Clipping Machine

Chicago Flexible Shaft Co. 206 ONTARIO Chicago

## RANKIN MANURE SPREADERS

Are more worth having than any other kind. They are most up-to-date; lightest draft; most durable; most convenient and most satisfactory in every way. We prove it to you. Write us sure before you buy any kind of a Spreader. You save money buying from us and get better machines. We take all the risk.

30 Days Trial Satisfaction Guaranteed

Write at once for our Special Price Offer and our Handsome New Catalog. We will sell one Rankin Spreader for a special price to introduce it in your neighborhood. A Cut Price to first buyers in new neighborhoods makes us money in the long run. Will you be the first to write us? The opportunity is open today. DAVID RANKIN MFG. CO., Box 61, Tarkio, Mo., U. S. A.

## The "ENTERPRISE"

### Meat and Food Chopper

The only true Meat and Food Chopper. Cuts by means of a sharp, four-bladed steel knife and perforated plate. Useful in the kitchen every day. Indispensable at butchering time. Easily cleaned. Cannot rust. Strong, simple, reliable.

The "ENTERPRISE" CHOPPER IS USED BY THE U. S. ARMY AND NAVY. Made in 45 sizes and styles for hand, steam or electric power. We also make the "Enterprise" Coffee Mills, Sausage Stuffers and Land Presses, Bone, Shell and Corn Mills, Raisin Seeders, etc. Catalogue free. Sold by Hardware and General Stores Everywhere.

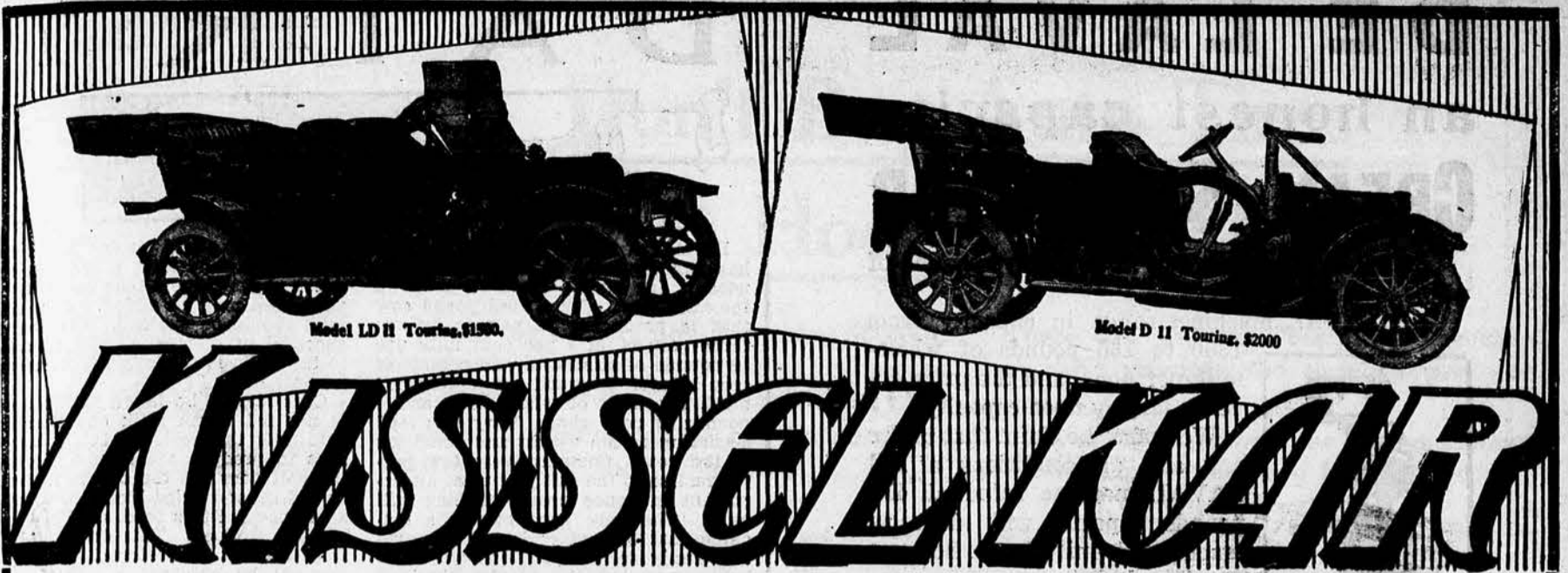
Send 4c in stamps for "The Enterprising Housekeeper"—a book of over 200 valuable recipes and kitchen helps.

THE ENTERPRISE MFG. CO. OF PA. Dept. 66 Philadelphia, Pa.

Galls cured while horse works

Strong, durable, light, humane. Lanford's Cotton Filled Collar, only \$1.25. Flexible, therefore conforms to any shaped neck—fits snugly, but doesn't chafe. Prevents galls and sore shoulders. Lasts for years—sold by all dealers. If not by yours, write for free booklet today. The Powers Mfg. Co., 144 Sycamore St., Waterloo, Ia.

Steel Mills \$12.75 We make many sizes of Mills, Iron Pumps \$1.80 Tanks, Pumps and Gasoline engines: satisfaction or no sale. Gasoline \$2.70 You will save money if you investigate. Engines. Catalogs Free. The Ottawa Mfg. Co., 603 King St. Ottawa, Kansas



## The Car That Makes Good Under All Conditions

**I**N owning a Kissel Kar you will never feel that your car is outclassed in luxury or appearance by any other car, regardless of price—you will never encounter a road condition that the Kissel Kar cannot easily master—the running cost will be low enough to permit your using it to your fullest pleasure. It will take you where you want to go, and bring you back in comfort, because not only is the Kissel Kar built strong enough to stand the strain of hard driving, but it has the liberal wheel base, big wheels, strong springs, and luxuriously upholstered tonneau that makes driving even on rough roads comfortable and pleasurable.

**EVERY INCH A CAR**

*(Licensed Under Selden Patent)*

This extreme comfort, and the fact that it is so easy to operate that even the girls of your house can drive, make the Kissel Kar the most desirable type of family car.

The Kissel Kar is especially built for country service—a standard, high quality automobile in every detail—reasonably priced—reliable for all roads—easy to control—not expensive to maintain.

Everything about the Kissel Kar is simple—the mechanical oiler on the motor practically takes care of itself—the brakes are extra powerful—the shifting from speed to speed is smooth and silent—the easy control makes motoring safe. You will learn to operate and feel competent to drive the Kissel Kar sooner than any other car.

**Write for Free Portfolio** beautifully illustrating and describing 17 models, including the 30 H.P. \$1500, and 50 H.P. \$2000, and 6 Cyl. 60 H.P. \$2500 Kissel Kars. It's valuable to anyone considering the purchase of an automobile. Sent free.

**Kissel Motor Car Company**

175 Kissel Avenue, HARTFORD, WISCONSIN

exceptions these institutions, separate and combined, are now doing a grand work in educating the farming youth of the nation.

It was through the direct influence of the Grange that the additional appropriations for agricultural colleges by the 1890 act of Congress were confined to instruction only in agriculture and the mechanic arts.

The Hatch act for the establishment of state experiment stations, which are doing such great work for the agriculture of this country, became a law by reason of the efforts of the Grange to secure its enactment.

It was through the influence of the Grange that the Department of Agriculture at Washington was raised to the dignity of the other departments of the National Government, to be presided over by a Secretary of Agriculture in the President's Cabinet, thus giving farmers a voice in the policy of the government as it affects the agricultural interests of the country.

The transportation question engaged the attention of the members of the Grange in the early days of the order, and in the famous Iowa case the decision was handed down from the Supreme Court of the United States that all railroad franchises are subject to the power which created them; or in other words, that "the creature is not greater than the Creator."

Through the direct influence of the Grange, the Interstate Commerce Commission was established by act of Congress, which in a measure aims to control interstate traffic, and gives the people a means of redress from the injustice and extortions which are often practiced by those gigantic corporations, thereby saving the people great annoyance and vast sums of money in reduced rates of transportation.

The subject of taxation has always engaged the attention of the Grange, and it is through the influence of this farmers' organization that in many states the burdens of taxation have been in a measure, at least, equalized by a more equitable assessment of real estate between town or city and farm property, and by the enactment of laws taxing personal property and corporations which had hitherto paid little, if any, taxes for local or state purposes.

The Grange is strenuously opposed to adulterations of all kinds and main-

ly through its influence state and national laws have been enacted to control the sale of oleomargarine and other butter frauds and protect the great dairy interests of the country from these vile compounds which the unscrupulous manufacturers would place upon the market as pure butter.

Through the influence of the Grange most maple sugar producing states have enacted stringent laws against the adulteration of this farm product, thereby protecting both producers and consumers from a spurious article.

The Grange successfully fought the driven well and sliding gate patents in the courts, saving enormous sums of money in royalties which were being extorted from farmers and others using them.

Through the influence of the Grange upon Congress the extension of the patents on sewing machines was prevented, saving to the people fully fifty per cent in the prices, amounting to millions of dollars annually.

The Grange has a grand record of usefulness in legislation in nearly every state in the Union for its influence on the side of justice and equality in the enactment of many wise and judicious laws in the interests of the people, and for the protection and advancement of farming industries.

A recent victory of the Grange, and one of its grandest achievements, is the establishment of rural free mail delivery in various sections of the country. The Grange was the first organization to publicly proclaim that if it was right for the government to carry mail to the homes of people in cities, it would be right for it to carry mail to the homes of people in the country, and through the discussion of the question and intelligent presentation of the matter to Congress, appropriations have been secured; first, for experiment, and now practically for permanent establishment of the system of rural free mail delivery. This breaks up the isolation of farm life, will tend to secure better roads, and advance farm values wherever it extends. The results in this matter alone will justify the entire cost of the Grange from its establishment to the present day.

### Teachings of the Grange.

While a successful subordinate grange is one of the chief stones within the foundation of our upper structure, and every patron should zealously strive to attain and maintain a

successful subordinate grange, there are periods within the history of every grange when conditions outside of consideration in this connection will shake the confidence of even the strong-hearted.

It was the Grange that taught farmers, after ages of isolation, to work together for their own general welfare.

It was the Grange that laid down the doctrine that while God at the beginning made agriculture honorable, it was the duty of the farmer himself to maintain it as such.

It was the Grange that taught that true worth can only be reckoned by the social and intellectual attainments of men.

It was the Grange that first encouraged higher ideals of citizenship, and a more intelligent use of citizen privilege through a better understanding of public affairs.

It was the Grange that sought to teach higher ideals in the management of farms and in home-making.

And the Grange is going to continue working along this line by improving the opportunity to develop a higher education for country life.

The time has come when we should appeal to all to exercise the faith that is in them, that more organization would be good for our country, and that we all get together and cooperate in building up our education, our economic cooperative interests and the general welfare of our country life.

We should appeal to all farmers and leaders in agricultural affairs to get into the harness and all pull together along the line for the betterment of farm home surroundings.

Assistant Secretary of Agriculture Willet M. Hayes said before a teachers' meeting: "Never were there such possibilities of improving agricultural production, farm home making and country society in general as at present. The new science, the new body of knowledge in agriculture is the basis of a new inspiration. These are times when country life affairs are looking up.

"Any reasonable well-directed efforts along lines well thought out will succeed in almost any community and for almost any good purpose.

"This is a time for sincere optimism, not for booming, but for substantial promotion of more and better organization in the interests of the

people who live on the American farms."

Eduction is coming to mean vastly more in production, in good living and in general social uplift in country and in city than heretofore. The time has arrived when no other business requires greater study and thought than that of agriculture in all of its branches.—A. B. Judson, Master of the Iowa State Grange.

### Cultivating Methods.

There is no denying the fact that methods of cultivating vary. Some farmers cultivate shallow and others deep. Of course much depends upon soil conditions. But there is one thing certain and that is that the cultivation should be thorough and the weeds kept down. It is also a fact that soil conditions and the "lay of the land" has forced cultivator manufacturers to build many types of machines. One of the most complete lines of cultivators on the market is the Buckeye, manufactured by The American Seeding-Machine Co., Incorporated, Springfield, Ohio, and the farmer can get any style he needs—Buckeye Adjustable Arch Walking Cultivators with rigid or parallel spring shovel beams, Buckeye Sunbeam Walkers with adjustable arch and spring teeth or with side harrow attachment, Buckeye Sunbeam Adjustable Arch Alanced Frame Walkers, Buckeye Dodger Pivot Axle Riding Disk Cultivators, which are the best hillside disk cultivators on the market; Easy Buckeye Riding Cultivators with pin or spring shovels, Buckeye Pivot Axle Riding Cultivators equipped with long or short axles, having four, six or eight spring trip or pin break shovels or spring teeth beams with ten spring teeth, acknowledged to be king of all shovel cultivators; Buckeye Hammock Seat Cultivators in all syles and sizes; the new Buckeye Narrow Row, that has such great latitude as to width of adjustment that it will take care of any narrow row crop and the wide row as well. Parties who contemplate the purchase of a cultivator should send to The American Seeding-Machine Co., Incorporated, Springfield, Ohio, for their cultivator pamphlets and then go to their local implement dealer and insist on seeing the Buckeye. Remember that these tools are sold under a warranty that amply protects the purchaser—a guaranty that no manufacturer would dare to make unless his goods were absolutely right.

# DE LAVAL

## an honest capacity

# CREAM SEPARATOR

All separators are rated at so many pounds of whole-milk per hour.

DE LAVAL machines range in capacity from 1350 to 135 pounds of whole-milk per hour, and the price depends largely upon capacity.



We make the claim that under any and all conditions a DE LAVAL machine rated at 450 pounds capacity will skim as much whole-milk in an hour as any "would-be" competitive machine rated at 600 pounds per hour, and we have proved this statement so often in actual con-

tests, that it has come to be an accepted fact by all well-informed dairymen.

Every DE LAVAL separator is tested for capacity before it leaves the factory, and we guarantee every machine to separate its full rated capacity.

**Before you buy a Cream Separator See and try a DE LAVAL**

Have one set up at your house and test it alongside of any other machine you like for capacity, cleanness of skimming and ease of operation. We don't ask you to buy a DE LAVAL upon "claims." We do ask you to be sure and give it a trial before you purchase any separator.

Catalog and full particulars of our "free trial plan" gladly mailed upon application.

**THE DE LAVAL SEPARATOR CO.**

165-167 Broadway  
NEW YORK

173-177 William Street  
MONTREAL

42 N. Madison Street  
CHICAGO

14 and 16 Princess Street  
WINNIPEG

Drum and Sacramento Sts.  
SAN FRANCISCO

1016 Western Avenue  
SEATTLE

**SAVE \$40.00**  
**On This Pitless Scale**

Write Today For My **Special Offer** On This Guaranteed "Knodig" Pitless Scale

I am making an offer that every farmer should know about. It will cost you nothing to put the scale on your farm and use it for four weeks. I will make you a special price this month as an advertising proposition. The Knodig is the best scale on the market. Bought by U. S. Government. Write now for free literature and special offer.

© NATIONAL PITLESS SCALE CO.,  
2004 Wyandotte Street, Kansas City, Mo.

**FREE TO FARMERS**

A Valuable 100-page book entitled **"SILO PROFITS"**

Written by 200 of the most successful Feeders, Farmers and Dairymen in the World. Every farmer in America should read this book, and as long as our supply of these books lasts we will mail one copy free to each person asking for it. It gives the actual experience of these farmers and in their own words.

Our Factories are located at Anderson, Ind., Des Moines, Iowa, and Kansas City, Mo. Write NOW for this book **"Silo Profits"**

**INDIANA SILO COMPANY**  
311 Union Building, Anderson, Indiana

When writing advertisers please mention Kansas Farmer.

**ANIMAL HUSBANDRY AND NATIONAL SWINE MAGAZINE**

The Only Scientific Animal Disease Paper. Official Organ National Association of Live Stock Breeders, Raisers and Shippers, with 100,000 members. Contributors are among the Leading Scientific Men of the World. Live Stock Advertising \$1.75 inch, monthly. Subscription 50c year. Send for sample copy.

**W. H. WAGNER & SONS, FREEPORT, ILL.**

**GOPHER**

Trap; best ever invented; satisfaction guaranteed. Circular free. A. F. RENKEN TRAP CO. Box 32, Kramer, Neb.



**You Hear!**

when you use **Wilson's Common Sense Ear Drums**

The only scientific sound conductors. Invisible, comfortable, efficient. They fit in the ear. Doctors recommend them. Thousands testify to their perfection and to benefits derived.

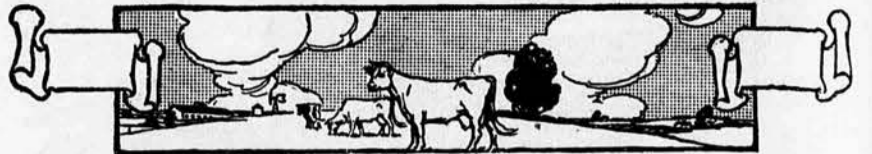
Information and book of letters from many users, free.

**WILSON EAR DRUM CO.**  
304 Todd Building (13) Louisville, Kentucky

**A BASKET OF FEED FOR 30 CENTS**  
that makes hens lay in winter when same are high. We will send the recipe for 50 cents.

A. C. WARREN,  
Box 291, Detroit, Mich.

# DAIRY



Here is a tested dairy ration that has the approval of men who have used it for long periods to keep up the milk flow. For a 1,000 pound cow that is producing 25 pounds or say three gallons, of 4 per cent milk use 10 pounds of alfalfa hay, 30 pounds of corn silage, 1 pound of cottonseed meal, 2 pounds of wheat bran and 4 pounds of corn chop. Vary this feed according to the weight and condition of the cow. Comparatively few people realize to the full just what an important influence proper feeding will have. The pure bred cow is a machine that is perfect in all its parts and ready to do excellent work for her owner, but the results obtained will depend upon the man. The machine is there and the fuel but the man must bring the two together in proper combination to get results. A good cow with poor feed is no better than a poor cow. A poor cow with good feed may pay but a good cow with good feed is a sure money maker.

**Buying a Dairy Cow.**

In selecting a dairy cow there are many things to consider. First, it is a good plan to examine a cow carefully and determine her possibilities; and next learn if there is anything to interfere with the realization of these possibilities. The cow must have a good disposition and must also conform to typical dairy type, according to the Industrialist.

A cow with a good constitution has a smooth, oily coat, while one in poor condition has a coat that appears rough and dry. The general carriage of the cow is also a very good indication of its constitution. The disposition of a cow is shown in the eyes. A cow's disposition is a very important factor. The animal should be gentle and kind, and yet have the typical dairy, nervous temperament.

Well developed milk producing organs are essential. It is easy to distinguish the difference between a good milk factory and a poor one. The udder should be large but not fleshy. The teats should be of good size. The milk veins should be large and they should enter well forward and end in good sized milk wells.

**Taking Half Advice.**

A good one is told on the dairy farmers of a section of country through which a "dairy institute train" recently ran. The lecturers on this train showed that the general average of production for the milk cows of the country was only about 150 pounds per year. They showed that such a cow was merely a boarder and made no profit for her owner and they urged the farmers to weigh and test the milk and get rid of the "boarders."

Here is where the laugh comes in. These farmers listened to the experts, then went home and tested their cows and then sold the cows and quit the dairy business. From being a good milk territory this section of country dropped off in its supply until it produced almost nothing.

Now the farmers are kicking themselves and they sure do deserve a kicking. They have lost nearly two years in time, their farms have suffered for lack of fertility and they are sadly out of pocket not only because of the loss from the milk production besides the heavy loss sustained in the change of farming methods.

**How to Rear a Calf.**

Did you ever rear a calf? After it has run with the cow long enough to have consumed the first milk, which takes two or three days, it is best to wean it and feed it by hand.

In teaching the calf to drink, place two fingers in its mouth and at the proper moment withdraw them and put its head into the bucket of milk. After a few lessons the calf will soon learn to drink.

It should be fed whole milk for about four weeks before you add any grain or skim-milk. The milk should be fed to the calf warm; that is, with the animal heat still in it.

The calf should be fed about four quarts of whole milk a day at first. After about three weeks one quart of skim-milk may be added. This skim-milk should be warmed. About a teaspoonful of oil-meal should be added to the milk, is the way the Industrialist puts it.

Care should be taken that the calf is not fed warm milk one time and cold milk the next, for this is almost sure to produce the scours. In case the calf does get the scours it should be fed ground dried blood, in doses of a teaspoonful to a feed, until the trouble has stopped. This dried blood is sold at most feed stores. In case it can not be obtained a tablespoonful of common salt will be found very effective.

Teach the calf to eat grain after it is four or five weeks old. Let it go without one feed of milk, so it will be hungry, and place a few grains in the calf's mouth. If you hold up its head it soon learns to chew the grain.

Corn should be placed in a box so that the calf can reach it. All the corn that the calf will eat up clean should be fed. In case more corn is fed than the calf will consume the box or trough should be cleaned before the next feed. Calves will not eat so much if there is any feed left over.

The increase of the skim-milk should be gradual until the calf is about seven weeks old, when it should be receiving only skim-milk. The feeder must be governed by the size of the calf and its growth, but the average calf should receive about eight quarts daily when it is eight weeks old. When the calf is fed twice a day it will drink more milk than is needed, if it has a chance.

If the calf is born in the late fall or winter it should have access to bright alfalfa or clover hay. The stall should be kept clean. Plenty of clean straw should be used for bedding. The calf should have access to a lot large enough for exercise and sunshine.

If the calf is born late in the spring it should have access to a good pasture. Good, cool water should be supplied. Alfalfa or clover makes excellent pasture for young calves.

**Do High Records Tend to Produce Non-Breeders?**

A careful study of the advanced register of Guernsey cattle, brings out the following facts: There are 1,112 advanced registry records reported in the latest volume, and of this number of cows only 55 were reported not in calf at the close of their year's test, or a total of 4.9 per cent. There were 23 cows of all ages that had produced 400 pounds of butter-fat and were not in calf during their test, or a total of 2.06 per cent.

The percentage of cows, of different ages, which were in calf during the test, was as follows

- In the 5 year or above class, 93.3 per cent.
- In the 4½ to 5-year class, 95.5 per cent.
- In the 4 to 4½-year class, 97.7 per cent.
- In the 3½ to 4-year class, 95.6 per cent.
- In the 3 to 3½-year class, 94.9 per cent.
- In the 2½ to 3-year class, 96.5 per cent.
- In the 2 to 2½-year class, 95.4 per cent.

Putting this test on a little more scientific basis, and requiring all cows, reported as being in calf, to be two month in calf during the test, we have a slightly different result: not as large a per cent being two month or over in calf. Many cows with big records have not been bred until the close of their year's work, but it seems reasonable to expect a cow to be at least two months in calf, and it is an uncertain matter to report them safely in calf in less time. I have therefore selected this period on which to base my figures for this article.

The cows of all ages which were two months in calf during the test, produced butter-fat in the following amounts per year:

- 80.5 per cent produced 400 to 450 lbs.
- 82.2 per cent produced 450 to 500 lbs.
- 80.8 per cent produced 500 to 550 lbs.
- 85.4 per cent produced 550 to 600 lbs.
- 79 per cent produced 650 lbs. and up.

Taking the above report to be correct, we have the following results: The association reports over 95 per cent of the record cows in calf before the close of the test. Barring out those cows reported in calf, but not found to have been two months in calf, the records show that 90 per cent is a good average. It would seem, then, that records of 400 and 500 pounds of butter-fat can be made, without impairing the cow's capacity as a breeder, with careful feeding and management; but when a cow is forced to 550 to 600 pounds of fat per year, there is great danger of making her a non-breeder. These figures have been worked out with Guernsey cattle; as the Guernsey Association is the only one giving the data required for the above information.

**A Barn for 15 Cows.**

I contemplate the construction of a cow barn with capacity for 15 cows. Will you please tell me the most desirable size for the building, the kind of structures used by the best dairy-men and the general arrangement inside for convenience.

If it's not feasible to furnish this please refer this letter to some reliable person who will furnish the information asked for and I will pay for same.—Geo. P. Comer, Rushville, Neb.

It is quite difficult to plan a barn with a capacity for 15 cows when one does not know any more regarding the details than you gave in your letter.

If it is desired to have the cows in two rows, then the proper dimensions for the barn with a capacity of 15 cows would be 32 feet wide, and about 32 feet long. This will make room for 8 stalls 3 1/2 feet wide on each side and an alley way at the end of about the same width. Stalls for dairy cows are made from 3 to 3 1/2 feet in width depending upon the size of the cows. For small cows as the Jersey, 3 feet is sufficient; but for large cows as the Holstein, 3 1/2 feet is not any too wide.

The barn being 32 feet wide, would permit of the cows facing each other with an 8 or 9 foot feed way, 3 foot manger, 4 1/2 to 5 foot platform for stalls, 18 inch gutter and a 3 to 4 foot passage way back of the cows on each side. Some prefer to have the cows face out, giving for the reason that the cows will have more light, and also that the manure gutters will be in the center and the manure can be handled more easily. If the barn is lighted as it should be, the cows will have sufficient light when facing each other; and the question of having the manure gutters in the center instead of having the feed alley, is a matter of individual preference. I prefer to have the cows face the feed alley, because it will require less work to feed, since the feeds used such as hay, silage and grain are handled separately, whereas the manure is all handled in one container. The length of the platform on which the cows stand should be made 4 1/2 to 5 feet long depending upon the size of the cows.

The barn can be kept in a more sanitary condition by making the floors of cement and where plenty of bed-dia is used, one will not have any bad results. The swinging stanchions are the kind that is most generally used, as a cow can get a great deal more comfort in a stanchion of this kind than with the old rigid stanchions.

Windows should be put in so that 4 sq. ft. of light can be had for each cow. Some of the best dairy barns are built in a one story fashion without a hay mow above. The object of this is to prevent dust from the hay sifting down through the milking barn; but a barn can be made just as sanitary with a loft above, provided a tight floor is made in the loft and the rafters are ceiled with matched ceiling underneath. A tight ceiling and floor can usually be made cheaper than an extra barn for keeping and storing hay.

Some system of ventilation should be provided for in this barn. The King system of ventilation is the most perfect system in use today. The principle of this system of ventilation is to have outlets near the floor of the barn which takes out the foul air, and the inlets for fresh air should be near

# Don't Buy Auto Tires That Hook to the Rim

Motor car owners now are using 500,000 Goodyear No-Rim-Cut tires. They are so popular that our tires sales trebled last year. And 64 leading motor car makers have contracted for them this year.

These are the hookless tires—the tires that can't rim-cut—the tires 10 per cent oversize. They are saving motor car owners millions of dollars by cutting tire bills in two.



The No-Rim-Cut Tire



The Ordinary Tire

These two tires—the No-Rim-Cut and ordinary—are fitted on the same rim. This is the standard rim for quick-detachable tires, also for demountable rims.

The difference is this: The removable rim flanges are set to curve outward when you use a No-Rim-Cut tire. They must be set to curve inward—as shown in the picture—when you use an ordinary tire.

These removable rim flanges can be set either way by slipping from one side to the other. So Goodyear No-Rim-Cut tires involve no change in the rim.

**Rim-Cutting Impossible**

The No-Rim-Cut tire, when deflated, comes against the rounded edge. Rim cutting is simply impossible. We have run these tires flat in a hundred tests—as far as 20 miles—without cutting the tire in the slightest.

The ordinary tire—the clincher tire—needs to be hooked to the rim. The rim flanges must be set to curve inward, to grasp hold of the hook in the tire. That is how old-style tires are held on.

Note how that hooked flange digs into the tire when deflated. That is what causes rim-cutting. That is why a new tire may be ruined by running a few

hundred feet on a deflated tire. That rim-cutting usually adds one-fourth to one's tire cost.

**How We Avoid It**

We have invented a tire with an un-stretchable base. We vulcanize into the base 126 braided piano wires. Nothing can possibly force this tire off until you unlock and remove the rim flange.

When this tire is inflated the braided wires contract. The tire is then held to the rim by a pressure of 134 pounds to the inch.

That is why hooks are not needed. Not even tire bolts are needed. The tire can't come off because the base is unstretchable.

We control this feature by patent. It is the only way known to make a safe, practical tire which doesn't need to be hooked to the rim. It is the only sort of tire which you will buy when you know the facts. For the worry and damage of rim-cutting is now an utterly useless waste.



**Tires 10% Oversize**

Goodyear No-Rim-Cut tires are made 10% oversize. The flare of the tire permits that when the rim flanges turn outward.

We give you that 10% oversize without any extra cost. That means 10% extra carrying capacity. It means, with the average car, 25% more mileage per tire.

Most tires are overloaded by the extras one adds to a car. The top, glass front, gas tank, extra tire, etc., load the tires beyond the elastic limit. That is the cause of blow-outs. It is the cause of one-fourth of all tire expense. This oversize avoids that.

These No-Rim-Cut tires—these oversize tires—now cost the same as other standard tires. They used to cost one-fifth extra.

These two features together cut tire bills in two. You can get them without any extra price by insisting on Goodyear No-Rim-Cut tires.

Our new Tire Book tells scores of things which motor car owners should know. Write us to send it to you.

**THE GOODYEAR TIRE & RUBBER COMPANY**

42nd Street, AKRON, OHIO

Branches and Agencies in All the Principal Cities

(118)

We Make All Sorts of Rubber Tires

**15<sup>95</sup> AND UPWARD**

**AMERICAN SEPARATOR**

SENT ON TRIAL, FULLY GUARANTEED. A new, well made, easy running separator for \$15.95. Skims hot or cold milk; heavy or light cream. Different from this picture which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Whether dairy is large or small, obtain our handsome free catalog. Address **AMERICAN SEPARATOR CO. BAINBRIDGE, N.Y.**

the ceiling of the barn. The outlets and inlets should be so arranged so there will be no direct draughts over the cows.

From the dimensions given above, you can figure out a plan to suit your own conditions. If it is desired to house the calves in the same barn with the cows, one can make the barn considerably longer so that the cows can be stanchioned on one side, and the calf pens and the box stalls on the other side of the food way.—J. E. Reed, Asst. Professor in charge, K. S. A. C.

**The Silo That Made Good**



There is no good reason why you should not buy the Silo that has been tried and proven absolutely practical.

The Des Moines Silo is constructed of the best materials obtainable, and has more exclusive features that have been tested and found indispensable to a practical Silo than any other make on the market.

Only highest-grade lumber goes into the Des Moines and it is carefully milled to the proper circle. The tongue and groove being inside the center stave, allow the heavy flange to be set on the outside to meet the strain, and prevents the Silo from buckling in a heavy wind. The joint used for splicing our staves is self draining and is made with our own special machinery.

The Des Moines is the only Silo having the Patent Hoop Springs which take up the contraction and expansion of the staves without bursting the hoops. The Bevel Door and Bevel Frames never bind or stick.

A 1911 improvement is our Patented Roof which is illustrated in our catalog, which also gives full information regarding the many other advantages of the Des Moines.

**Write for Free Silo Book of Full Details Now**  
**Des Moines Silo & Mfg. Co.,** 117 5th STREET Des Moines, Iowa.

# My 1911 Book Ready - Send Name

**-Proves Why My Low Prices on 100,000 Machines Make Me Only 7 Per Cent on**

**OLD TRUSTY** a lifetime reputation for square deal on Old Trustys. When I made only 50,000 Old Trustys I had to charge 16% profit, but chicken raisers, both beginners and experts, have bought so many Incubators from me that they forced my factory capacity up to 100,000 and I'm giving it back to my customers by keeping only 7% or less, profit now on each machine. Old Trusty is better and surer than ever this year. Handsomely metal encased and asbestos lined. Hundreds of thousands in successful use now—3 times as many as any other made.



Let Me Send You This Big Book Free



Less Than \$10 Now and Johnson Pays the Freight (East of the Rockies)

30, 60, or 90 Days' Trial  
10 Year Guarantee

Write today for my big book—hundreds of photographs and every page a poultry sermon easy to follow for big profits. Send a letter, or write a postal and send it by first mail. Take Johnson's word for it, you cannot spend a little postage to such good advantage. Address

**M. M. JOHNSON, Incubator Man** Clay Center, Neb.



## Build a Rankin Silo

WE TELL YOU HOW. COSTS NOTHING TO LEARN.

Makes more money for cattle feeders as well as for dairymen. An old German adage has it: "First build a barn, and the barn will build a house." We say: Build the Silo first, and it will build both the new barn and house quicker and easier than anything else.

**\$10 to \$20 per acre more for your corn!**

Put this extra money in your pocket. Why throw it away? We give you facts and figures from actual results in the feed yard that will prove eye-openers. Our experience and all information are yours for the asking. Write us now while you have it in mind.

**D. RANKIN MFG CO., Box 51 Tarkio, Mo., U. S. A.**

## WHITE PLYMOUTH ROCKS

(EXCLUSIVELY.)

For 13 years I have bred White Rocks, the best of all purpose fowls, and have some fine specimens of the breed. I sell eggs at a reasonable price. \$2.00 for 15, or \$5.00 per 45, and I prepay expressage to any point in the United States.

STATION B. THOMAS OWEN, TOPEKA, KAN.

## Why Incubator Chicks Die

The book entitled, "The History of White Diarrhoea or Why Incubator Chicks Die," will be sent absolutely free by return mail to any one sending us the names of 5 to 8 of their friends that use incubators. This book can save you \$100 this summer. It describes white Diarrhoea, or bowel trouble, the cause, and tells of a cure. Book absolutely free for the names.

**Raisall Remedy Co., Blackwell, Okla.**

## FRENCH QUALITY REDS

New York, Boston, Detroit, Chicago, Providence and Alaska Yukon-Pacific Exp. winners. Grand lot of pullets and cockerels for sale from winners. Send for my egg circular.

R. S. FRENCH, Flushing, Mich.

PORT ARTHUR ROUTE

THE ROUTE TO HOMES

## \$200 to \$400 per Acre

A PRODUCT TO SELL EVERY MONTH IN THE YEAR

No extreme heat in summer; no malaria; no mosquitoes, and the winters are mild and not long in the beautiful and delightful Ozark Region. Intensive farming is the watchword of the hour and all land values are increasing. Titles are good; investments are safe and profits are sure.

FRUIT, TRUCK AND POULTRY FARMS

Along the Kansas City Southern Railway in Southwest Missouri and Western Arkansas there are many idle acres of the most fertile and productive land in the United States. It is being divided into 5, 10 and 20 acre farms, or larger, and sold on easy payments. It is exceptionally well adapted to fruit, truck and poultry raising. Strawberries, apples and poultry are the big money makers and many men who have located on these lands have made as high as \$450 per acre. \$200 to \$400 per acre is common. You can do the same and if you are industrious you can occupy your time at all seasons and have a product to sell every month in the year. You can buy these lands at from \$20 to \$25 per acre. Drop me a line and I will suggest what I believe to be the best locations at reasonable prices. Write me today.

THE ROUTE TO HOMES

S. G. WARNER, GENERAL PASSENGER AGENT, KANSAS CITY SOUTHERN RY., Thayer Building, Kansas City, Missouri.

PORT ARTHUR ROUTE

## The Silo—It's Saving.

We say it should be called the "savings bank" of the farm, then it would be the bank of the biggest business in the world. Farming is easily our leading enterprise and it is one of the most dignified. To operate the farm at a profit requires the same business tact found in other of the great enterprises—the railroads, manufacturing, etc., and the man that puts enthusiasm, mentality and work into his farm life receives good returns as well as respect and admiration of all classes.

We do not presume to offer this statement as any new thing but to remind the farmer that he is engaged in the greatest of all callings and to cope with other men in different kinds of business, he must keep posted and abreast of the times by bringing into use modern means and methods. The silo is a strong factor and its use plays a very important part in intensive farming, in that the silo adds nearly double the feed returns to every acre of corn. Think of it! Transforms one bushel into two—that means 20 acres of corn will feed about the same number of stock that require 40 acres of dry feed. This permits 20 acres more being seeded down to clover and timothy and in four or five years when plowed up will yield nearly double—makes new land. So it will be seen that the silo will help to renew the old land.

By actual test it is found that a corn crop can be harvested and fed out to stock through the silo as cheap as the old way. There are other advantages in its favor too—stock relish the feed more, keep in better condition, fatten faster, etc., and then it makes the feeding so much more pleasant, especially in stormy weather.

The live stock problem is helped by the use of the silo. More stock can be fed—nearly two to one, and this helps in the rotation. The more stock fed on the farm the greater the quantity of manure. This properly distributed on the land means greater fertility, increased yield, more profit.

It is possible the time may come in this middle west when stock will be kept in lots and barns in the summer as well as in the winter—fed entirely from the silo. We may not see it and yet it may come within a reasonable time. It is sure to come some time and that before our present population is doubled. It will pay right now near the large cities.

This last summer made some owners of silos appreciate them more than ever before. When the pastures began to dry up it was a lucky farmer who had a silo to feed from, and these farmers, with such conditions, have helped to spread the knowledge of the "silo saving."

The efficient experiment stations of several states and the bulletins issued on their work have been a great education and assistance to the corn producer as have also the splendid editorials in some of our leading agricultural papers and we are glad to note KANSAS FARMER is in the front rank. One manufacturer at least that we know of has very wisely quoted, or rather reproduced some of the excellent articles in their "silo literature."

Now to get it down to figures that we can readily understand, we venture to say the silo will save enough in two seasons at most to pay its first cost and then the purchaser can safely count on eighteen years' use for nothing, for a good fir full length stave silo should last from twenty to thirty years. And, by the way, don't consider cheaper lumber than fir at any price.

The question is, does the average farmer, do you, want to make the saving that the silo will make? If so, there is but one thing to do and that is to adopt the silo. Correspond with some of the reliable manufacturers of fir lumber silos and get one or more of them. Buy early and be ready when your corn crop is ready.

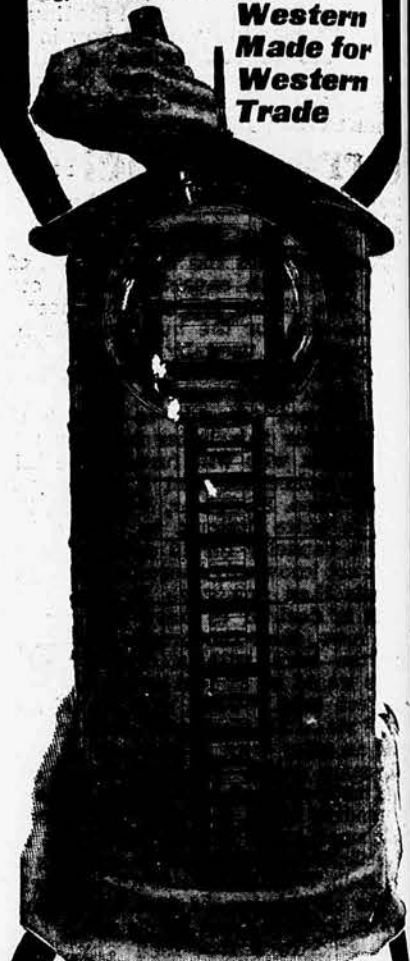
The silo profit is like any other business, to get the most out of it, good business judgment must be used. Be ready to harvest the silage crop right on the day it is ready. We believe the corn should stand until it is advanced far enough to cut up for fodder, then you get all the nutriment and the least amount of water. Cut the corn close to the ground.—Asheim Farm, Franklin Co., Kan.

When you buy anything be certain you get what you pay for. If you get insect powder make sure it isn't wormy.

# Before You Buy A Silo, Let Me Tell You About My Champion

I want to prove to you my Champion is the best silo you can possibly put on your farm. I want to tell you about my slip-proof, absolutely safe two-piece latch ladder, guaranteed to stand three times the weight of a man, and found only in the Champion. Let me tell you how my door frame, trussed and braced with steel, is absolutely rigid. These and the other superior features of the Champion Silo are fully described in my illustrated catalog, which I'll send you free.

Western Made for Western Trade



## Made in the West for WESTERN FARMERS

by a man who knows the requirements of western conditions. No eastern manufacturer can build you an entirely satisfactory silo any more than he can sell you successful seed corn without knowing your land. I have studied the West, was raised in the West and my Champion is just the Silo you need. Write for

## Special Introductory Offer—Save \$50

I am making a special offer to acquaint live, progressive farmers with the unequalled Champion Silo. I want to show you just how it meets the needs of the Western farmer. Take advantage of this offer. You can save \$50. Act now. Write for free catalog and full particulars.

**Chas. Harding, Pres.**  
Farmers Co-Operative Creamery Co.  
801 Harney St., OMAHA, NEB.  
Affiliated With the Farmers Co-Operative Produce Co., Des Moines, Iowa.

When writing advertisers please mention KANSAS FARMER.

## 57 BUSHELS MORE POTATOES PER ACRE

WHERE PLANTED WITH

# IRON AGE

(Improved Robbins)

## Potato Planter

Average results obtained in a careful, thorough test against a "picker" planter by Maine State Experimental Station, in 1910. Ask us quick for the proof—we will send you now on a free copy of their report in Bulletin No. 188, which will be ready about March 15th. Shows exact results. Also, comparison of level culture, high and moderate ridging. 100 per cent. perfect planting is what you want—no doubts, no misses, no injury to seed. Address

BATEMAN MFG CO.  
Box 71-P  
GRENLOCH, N. J.



Man on rear seat makes corrections only.

**\$1.25 Buys both**

An Incubator and Brooder bargain unparalleled—the biggest capacity and highest efficiency ever sold for the price. You get all the best features found on the high priced machines and in addition you get an incubator made from special heat and cold resisting material, with hundreds of dead air cells which prevent absolutely temperature changes and insure perfect hatches every time. You are safe in buying my Progressive Incubator, for my "Buy Back Guarantee" offers to buy it back from you if not satisfied, and pay you 8 per cent interest besides.

**PROGRESSIVE INCUBATORS & BROODERS**

**FREE** Buy right from this ad, or if you want more information send at once for the "Progressive Method," it's free.

**FREE EGG**

**O. C. Wheeler, Mgr. PROGRESSIVE INCUBATOR CO., Box 180 Racine, Wis.**

**FREIGHT PAID East of Rockie**



**Made on the Only Correct Principle**

Lamp is underneath, in the center. That gives it the most even temperature throughout the egg-chamber. Holds 4 to 8 quarts of oil. Automatic trip shuts down flame at burner when too hot. Others let heat escape. That's why the X-Ray Incubator needs only

**One Gallon of Oil and One Filling of the Lamp**

to hatch, while others need 3 to 5 gallons of oil and must be filled almost every day. Sold on 90 days' trial, guaranteed to be as represented and we pay the freight.

**X-RAY Incubator**

Means better hatches at less expense and no bother. Made of California Redwood,enameled, steel covered, rosewood finish. Ask for free book No. 34.

**X-RAY INCUBATOR CO. Wayne, Neb.**

**We Pay Freight**



**SMITH'S LAYING STRAIN OF Barred Plymouth Rocks**

Line bred, trap-nested, pedigreed for egg production. Every chick is pedigreed, every hen has a record kept of the number of eggs she lays; nothing but first class layers used in breeding pens. They will improve any flock of pure Plymouth Rocks. The farmer wants eggs, so don't fail to send for my rating list and see what I have.

**CHAS. E. SMITH**  
BOX F, BAYNEVILLE, KANSAS.

**\$7.55 Buys Best 140-Egg Incubator**

Double cases all over; best copper tank; nursery, self-regulating. Best 140-chick hot-water brooder, \$4.85. Both ordered together, \$11.50. Freight prepaid (E. of Rockies). No machines at any price better. Satisfaction guaranteed. Write for book today and send price now and save time.

**City Incubator Company, Box 18 Racine, Wisconsin**



**140 EGG INCUBATOR and 140 CHICK BROODER**

The incubator is Both \$10

with asbestos and galvanized iron; has triple walls, copper tank; nursery; egg tester, thermometer, ready to use. 30 Days' Trial—money back if not O. K. Write for Free Catalog today.

**Incubator Co., Dept. 73 Racine, Wis.**

**FITZ OVERALLS FOR ALL AGES.**

Compare the overalls you are wearing to-day with those you wore three years ago. They are just as good in material, as large in size, they will not wear or wash as well.

**FITZ Overalls Never Change**

they are the same in every detail as they always have been. If you are not wearing Fitzes, get a pair and you will never buy any other kind. Write for Free Fitz Booklet.

**BURNHAM-HANNA-MUNGER**  
D. G. CO.  
KANSAS CITY, MO.



**MAKE YOUR OWN INCUBATOR**

FOR 50C. SEND \$1 FOR FULL INSTRUCTIONS HOW TO MAKE AND HATCH. ANY ONE CAN MAKE

**Y. COOKE, EMERSON, NEBR.**

When the incubator is working in a room temperature of 70 to 80 degrees in the day time and 40 to 50 degrees at night, the regulator should be set to hold hatching temperature, while the room temperature is at its lowest. Once so set, the variation in the room temperature will not be apt to affect the uniformity of the hatching temperature. Otherwise it may be necessary to make a slight adjustment of the regulator morning and evening.

I have had several chickens act as if they were paralyzed in the legs. I feed mostly corn, some millet, alfalfa and wheat. I have had several with this disease. They seem to eat and drink well. Have had some live two weeks then I killed them. Can you tell me what to do for them?—Mrs. B. W. Frost, Lebanon, Kan.

From the limited information given in your letter of February 8 we should say your chickens were suffering from what is called "leg weakness." This is caused by over-feeding or too rich food. We should cut down on the wheat, if the chickens are eating much alfalfa; also on the corn ration. Let up on the feeding and give plenty of good water to drink, and the trouble will disappear—though the chickens affected will be a long time in recovering and will be of doubtful value if they do fully recover.

Perhaps some people do not value the advertising columns of their family paper as highly as they should, but this is entirely due to the fact that they do not stop to think of the benefits they derive from those columns. No paper has its highest value which does not contain a goodly share of advertising matter. If this advertising matter is clean and wholesome and placed there by reliable firms or business houses, it gives the reader a ready reference library from which he can supply his wants should they demand immediate attention, or from which he can gain information that will be of immense value to him in the future. Read the advertisements in KANSAS FARMER, and if you do not find what you want, ask the editor for information. He will help you all he can.

**Danger in Poor Seed.**

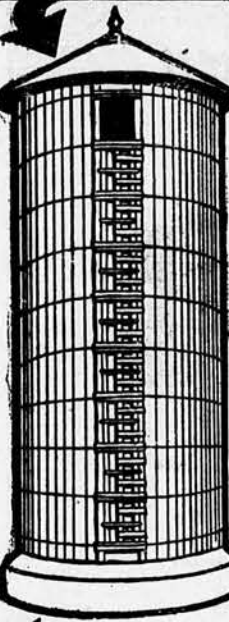
One of the incidental results of the recent State Corn Show was the discovery that a considerable amount of corn that looks good is really of poor seed quality. The fact should serve as a warning to the corn growers of the state; for the apparent meaning of the tests made is that much of the corn raised during last year is in such condition that it will not grow.

The Corn Show brought about a hundred and fifty samples of corn. After the prize-winning samples had been separated from the rest, two lots of forty ears each were taken at random from the remaining exhibits for a germination test, which was made under the direction of an expert. The results were surprising.

In making the tests six grains were taken from different parts of each ear and placed in a tester till they sprouted or had time to sprout. These tests were made in duplicate in order to secure a thoroughly reliable result. In the first lot of forty ears, the test showed that only seventy-five per cent of the corn was good; twenty-five per cent being worthless for seed. In the second lot of forty ears, better results were obtained, only fifteen per cent failing to grow, eighty-five per cent being good. The general average for the eighty ears was eighty per cent perfect. In other words, two ears out of every ten were worthless for seed.

No farmer can afford to plant corn and have fifteen or twenty or twenty-five per cent fail to grow because of dead seed. Enough of the perfect grains will fail to produce good stalks without planting dead grains that might be used to some good purpose for chicken feed. The lesson is that farmers should test their seed corn before planting. They should be sure that every ear is a good ear in all of its parts. Then they may expect a good stand when they plant, and a good crop if soil and culture and weather conditions are favorable.—D. W. Working, Superintendent Agricultural Extension, West Virginia and formerly of Kansas.

# Kansas Hinge Door Silo



**SAVES ITS COST EACH YEAR**

It will enable you to keep three cows where you now keep one. It will reduce the cost of producing beef, milk, mutton and eggs. It will build up your soil and increase the value of your land. It will make one acre of corn worth two.

**IS BUILT TO LAST.**

Washington Fir, fully seasoned, is used throughout. Government tests have proven that it stands moisture and has a low degree of shrinkage and expansion.

**POWERFUL FRAME AND LADDER.**

A silo must be built to stand the storms that will come upon it. That is why we use a strong steel frame—the strongest frame we can build.

The ladder is made of malleable iron—will bear the weight of five men—steps 15 inches apart, with 7-inch clearance.

**CONTINUOUS HINGE DOORS.**

The HINGE DOOR is patented. It is the one great improvement in silo construction. It makes the KANSAS SILO the leader. The HINGE DOORS are always in place, easily swinging into and out of position and are not scattered about the farm as box covers or "stepping stones" across muddy places. They will not bind or freeze and do away with the necessity for carrying them up and down the ladder.

**FULL LENGTH STAVES.**

No "spliced" staves in the KANSAS HINGE DOOR SILO. Full length staves only, regardless of height. "Spliced" joints or two-piece staves are apt to bulge or break. The Full-Length Stave Silo is far superior.

**HIGH QUALITY BUT NOT HIGH PRICE.**

We could not build the KANSAS HINGE-DOOR SILO better. The highest quality material—every modern convenience—yet the price is but little higher than prices asked for Yellow Pine Silos, which soon twist, warp and decay.

Write at once for prices, together with fully illustrated circulars, and proof that the Kansas is the cheapest Silo you can buy.

**CONTINENTAL CREAMERY CO.**  
BOX 211, TOPEKA, KANSAS

## THE SURE HATCH IS MADE RIGHT



Uncle Sam never says how a thing ought to be made until he knows. Farmer's Bulletin No. 236 of the U. S. Dept. of Agriculture tells the right way to make an incubator and what features a good incubator must possess. The Sure Hatch contains every one of those features and is made exactly as Uncle Sam says an incubator ought to be made. The

**Sure Hatch Incubator**

is the only one on the market that unqualifiedly meets every requirement of the government. It's the one perfect incubator.

We will send you a Sure Hatch for a 60 DAY FREE TRIAL, pay the freight, and refund your money if you are not satisfied.

Send for Farmer's Bulletin No. 236, sent free by the Government. Send also for the Free Sure Hatch Book. Read the Government requirements of a good incubator, then read the description of the Sure Hatch Incubator and you will see why we guarantee the Sure Hatch to hatch every fertile egg.

Write for catalog. Early chicks pay best.

**Sure Hatch Incubator Co.,**  
Box 42 Fremont, Neb.

## I'll Start You in Poultry on the Make-Good Plan



—Set you up in a paying business all your own—a business you can control and expand indefinitely—one you can operate on little capital and in small space—one that will give you real independence, pleasure and profit. Mail me a card to-day for my book containing the remarkable terms on which I am selling Queen Incubators and Brooders, freight prepaid. I have started over 61,000 people on the road to success. The Queen goes out on the make-good plan, the most liberal ever offered on a high grade incubator. My 1911 Poultry Guide and Catalog explains terms fully. It's a down-to-date poultry book, practical, concise, helpful—best book of the kind published. Write and let me mail it to you free.

**WICKSTRUM, Queen Incubator Man, Box 28, Lincoln, Neb.**

**\$10 BUYS NATIONAL INCUBATOR AND BROODER**

Just think! \$8.00 incubator and \$4.00 brooder for \$10. Don't pay more for equal or poorer quality. We pay freight to your station. 125-Egg National Incubator has Strong, fireproof, metal case, High, heavy nursery, Automatic heat regulator, Cold-rolled copper hot water tank, Reliable non-breakable lamp, Brooder has safety lamp—can't explode or break. It's roomy, cozy, free from drafts, easy to clean, every part quickly reachable. Order both incubator and brooder direct from this advertisement. We guarantee satisfaction or you get all your money back quick. Brand new poultry book free. Act now on this bargain.

**THE NATIONAL INCUBATOR CO., 133 10th Street, Racine, Wisconsin**

**FREIGHT PAID**

Incubator alone \$8.00

125 Egg

125 Chick Brooder Alone \$4.00



DREADNOUGHT

# Moline "35"



Two Models—Touring and Toy  
Tonneau—\$1650 and \$1600  
35 H. P., 36-Inch Wheels  
112-Inch Wheel Base

## This Car Has Proved Itself Best on Country Roads

**THE** name "Moline" on an automobile, Mr. Farmer, means as much—yes, even more—than it has meant to you on plows, wagons, cultivators, etc. It means more, because the Moline automobile has *proved itself best for your purpose* on country roads long before you buy it. You know from its public records what it will do on hills, in deep sand, ruts, mud, or over rough, rocky, tough roads. Its yearly Glidden Tour performances have *proved* this completely. In the last gruelling tour, in addition to winning the Chicago Trophy, the Moline

### Made the Best Record of Any Car Entered

in the entire tour, covering 2,852 miles. Not a single extra part was carried. Not a single tool was touched—an example of *dependability* never equaled. That's the kind of a car you want. A "no-trouble" car on which you can rely with absolute confidence.

Write for Booklet No. 33  
and read how the Moline out-pointed and out-roaded all others. It's FREE.

**Moline Automobile Co., 33 Keokuk St., E. Moline, Ill.**

## HOME CIRCLE

**No Occupation.**  
She cooked an unending procession of meals,  
Preserving and canning and baking.  
She swept and she dusted, she washed and she scrubbed—  
With never a rest from it taking.

A family of children she brought in the world  
And raised them and trained them and taught them;  
She made all their clothes and patched, mended and darned  
Till miracles seemed to have wrought them.  
She watched by the bedside of sickness and pain,  
Her hand cooled the raging fever;  
She carpentered, painted, upholstered and scraped,  
And worked just as hard as a beaver.

And yet as a lady of leisure, it seems  
The government looks on her station;  
For now by the rules of the census report,  
It enters her: "No occupation."  
—"Express."

A great convenience is a sponge and bowl of water close at hand when ironing to moisten dried-out spots.

A stiff feather from a turkey wing makes an excellent brush for cleansing the leaves of plants.

It is said that a most delightful sachet is made by taking a winter apple and sticking it, cushion wise, full of cloves.

A simple means of removing mildew from garments is to wet the mildewed spots with cold water and then cover them with common baking soda and expose to the hot sun. Repeat this process every morning until the stains have disappeared.

When sewing if your machine belt becomes too loose don't stop and cut off a piece of the belt. Instead put a few drops of machine oil on it and in a few revolutions of the wheel the leather will have contracted sufficiently to run well again.

It is said that instead of greasing the griddle for cakes you can use salt. Have a small bag (about the size of an egg) filled with salt and rub this over the omelette. This will do away with the disagreeable odor of the hot grease besides having the cakes a nicer brown.

"I don't know whether to accept this testimonial or not," mused the hair restorer man.

"What's the matter with it?" demanded the advertising manager.

"Well," explained the boss, "the man writes: 'I used to have three bald spots on the top of my head, but since using one bottle of your hair restorer I have only one.'—Pittsburg Press.

**He Was Annoyed.**  
Bill Nye used to tell this story of a Frenchman who was visiting in America. After opening his mail one morning he wore so gloomy an expression that his hostess asked him if he was ill.

"No, no," he replied sadly; "but I am dissatisfied. My father is dead."—Lippincott's.

**At Butchering Time.**  
The art of butchering and caring for meats the average farmer learns as a boy on the farm. Not a few farmers put by enough meat and lard to last from one annual butchering to another. But of course there are always a few farmers who do not. But with the present high prices a meat a greater number of farmers than heretofore will find it more profitable to put by all the meat and lard they can use during the year, at butchering time, with a good margin left over.

Butchering time, of course, occasions a great deal of hard, also disagreeable work, but coming as it does in the coldest part of the winter, when the menfolks have little to do except chores, much of the work which is sometimes assigned to the women can be done by the men and boys; and the work finished in a much shorter time.

In butchering as little waste as possible should take place. At the packing house they say all that is wasted is the "squeal." Why not the farmer practice such rigid economy? All that cannot be used for food should be fed to chickens. With some housekeepers much of the waste comes after the butchering is over, in the preparing of the daily meals. All fat odds and ends of cooked meat should

## Try my Course in Automobile Training One Week FREE



I want you to come to my school one week, don't pay me one cent. I want you to see for yourself, absolutely without expense to you, how thoroughly and practically I teach all about the automobile. I am confident my system of instruction—practical experience, no books, individual instruction—is the best system of instruction for you. However, you are to be the judge. I want you to investigate thoroughly before saying. Write today for catalog and One Week's Free Tuition Enrollment Blank.

**SWEENEY'S AUTO SCHOOL,**  
The School of Practical Experience,  
1224 East 24th Street, Kansas City, Mo.

**YOU** can earn here during your business course. By means of your practical work—real work—in the best possible training you can get.

Send for particulars.

**Dougherty's Business College,**  
Topeka, Kansas.

**BE A TELEGRAPH OPERATOR.**  
This school is equipped by the U. P. R. R. Earn from \$40 to \$200 per month. Salary while learning. Position guaranteed.

**Kansas Wesleyan Business College**  
Salina, Kansas.

**LEARN TELEGRAPHY IN FIVE MONTHS**

Secure Job on Santa Fe. Pay from \$25.00 to \$165.00 monthly. School has R. R. wires giving actual experience. Owned and operated by Santa Fe R. R. Write today for full information—Costs Nothing.

**SANTA FE TELEGRAPH SCHOOL**  
DEPT. F. TOPEKA, KAN.

*Strickler's*

**TOPEKA BUSINESS COLLEGE.**  
Good positions every day in Book-keeping, Shorthand, Civil Service, Information free.  
111, 113, 115, 117 E. 8th STREET,  
TOPEKA, KANSAS.

**Positions Guaranteed**  
**300** YOUNG MEN AND WOMEN WANTED AT ONCE to prepare for positions in  
**STENOGRAPHY, BOOKKEEPING TELEGRAPHY**  
to meet the demands of our patrons.  
**DRAGHON'S BUSINESS COLLEGE**  
and **UNION PACIFIC SCHOOL OF TELEGRAPHY**  
908 Grand Ave., - - Kansas City, Mo.

**LEARN TO BE AN AUCTIONEER**  
Our thorough, scientific mail course is endorsed by the peer auctioneers of the world. Write for catalogue.  
**NATIONAL AUCTIONEERING SCHOOL OF AMERICA,** Dept. 100  
LINCOLN, NEBR. GEO. E. DAVIS, Mgr.

*Lawrence*

**Business College**  
Lawrence, Kansas.  
Positions secured. Our big illustrated catalogue containing everything is FREE. Address: 214 Main St.

*Kansas City*

**Business College**  
N.E. CORNER TENTH AND WALKUT STS.  
For catalogue address C. T. Smith, Sec., 106 E. 10th St., Kansas City, Mo.

**RIDER AGENTS WANTED**  
In each town to ride and exhibit new sport Bicycle. Write for special offer. We ship on Approval with 10 days deposit, allow 10 DAYS FREE TRIAL and pay freight on every bicycle. **FACTORY PRICES** on bicycles, lamps and sundries. Do not buy until you receive catalogue and learn our unheard of prices and marvelous special offers. Tires, coaster brake rear wheels, lamps, sundries, **MEAD CYCLE CO., Dept. F. 236 Chicago, Ill.**

**HANDY GARDEN TOOL**  
Here's a practical tool for the farmer or gardener—our No. 6 Combined Double and Single Wheel Hoe, Hill and Drill Sower. Four tools for the price of one. It plows in hills or continuous rows, covers the soil, rolls the soil, marks the next row, beds, and cultivates. Simple, easy to operate, and does a day's work in 60 minutes.

**IRON AGE** Garden Tools

For 15 years we have been producing tools of quality for the farmer, trucker and town gardener. We make 23 garden tools at \$2.50 to \$12.00 each.

Write to-day for Anniversary Catalog describing our entire line including potato planters, cultivators, sprayers, diggers, orchard and other tools.

**BATEMAN M'FG CO.**  
Box 71-2 **GREENLOCH, N. J.**

Stock carried at Kansas City, Denver, Oklahoma City, Peoria, Ill., and St. Louis, Mo.

20 VRS

## Why Our Price is Only \$10

*Why do we save you half?*

**BECAUSE** we are manufacturing jewelers, because we save the jobber's profit, the dealer's profit and the traveling salesman's salary—and you get the saving.

Go to your local jeweler and look at a standard 20-year guaranteed gold-filled, hand-engraved, hunting case watch with 7-jewel American Waltham nickel movement stem wind and stem set. Ask him his price and compare it with our price of only \$10.00. Send \$10 (money or express order) and ask for No. 2468. The watch will be forwarded by return mail.

We are one of the largest mail order houses in the country—practically the only manufacturer who sells direct to the consumer. Our enormous business was built up on the sound policy *Money Back* by return mail if not satisfied. We guarantee prompt, safe, free delivery.

**Catalog Free** Send to-day for our beautifully illustrated catalog of Jewelry, Novelties, Diamonds and Watches. Add. Dept. K.

**National Jewelry & Novelty Co.**  
65 Nassau Street :: New York, N. Y.

**Be An Independent Buyer** Spend One Cent For This Big FREE Book

**A Kalamazoo Direct to You**

Our Big Free Stove and Range Book gives you our factory wholesale prices and explains all—saving you \$5 to \$40 on any famous Kalamazoo stove or range, including gas stoves. Sold only direct to homes. Over 140,000 satisfied customers and sizes to select from.

Over 400 styles and sizes to select from. \$100,000 bank bond guarantee. We prepare all freight and give you

- 30 Days' Free Trial
- 360 Days' Approval Test
- CASH OR CREDIT

Write a postal for our book today—any responsible person can have same credit as your home stores would give you—and you save \$5 to \$40 cash. No better stoves or ranges than the Kalamazoo could be made—at any price. Prove it, before we keep your money. Be an independent buyer. Send name for Free Catalogue No. 189.

**Kalamazoo Stove Company, Mfrs., Kalamazoo, Michigan**

## LOVELY EASTER CARDS FREE

We will send 5 lovely Easter Post Cards, printed in colors and gold, for 2-cent stamp to pay postage. This remarkable offer made to introduce our post cards in your vicinity. Write today. **A. PORTER, 107 Clinton Street, Chicago, Ill., Dept. 765.**

**MAPLEINE FLAVORING**

Use it like lemon and vanilla. A delicious syrup is made by dissolving white sugar in water and adding Mapleine. Grocers sell Mapleine; if not, add 35c for 2oz. bottle and recipe book. Write to Dept. **CRESCENT MFG. CO., Seattle, Wash.**



# Cornish One Year's Free Trial

Cornish Instruments for real music, are unexcelled by any other, whatever the price or name or reputation.



This is our offer to you—select any Cornish piano or organ, from the least expensive to the finest ever built and we, without one bit of obligation on your part, will send the instrument to you direct from our factory with the distinct understanding that if the instrument does not come up to your fullest expectations you are not to keep it, and that the

## Trial Will Cost You Absolutely Nothing

If the instrument does not prove better value for the money than you can get anywhere else—if it is not as good an instrument as you can buy for one-third more than we ask—if at any time within a year you feel that you have not a good bargain, send it back; we won't find one word of fault with your decision, and you will not be one cent out of pocket for freight or for use of the instrument.

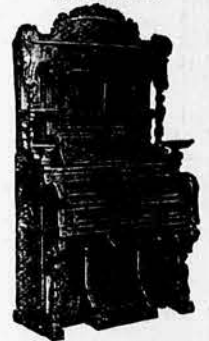
## Two Years Credit If Needed



We save you \$100 and more on a Piano

## The Cornish Bond Protects You

Easy Terms



and holds us strictly to this offer. You are to have the privilege of any terms of payment that you may choose. You risk nothing. We assume all responsibility, because we know all about the great beauty of material and workmanship in Cornish pianos and organs and we know all about the pure, sweet, rich tone quality of our instruments and we know what a quarter of a million satisfied purchasers think of them.

If you keep the instrument it will cost you the Rock-Bottom Factory Price, not one cent more, and you will receive with it our Bonded Guarantee which insures the instrument for 25 years against defect in material or workmanship.

Send For The New Cornish Book Don't think of buying before reading it. It is the handsomest piano and organ catalog ever issued. It explains the things you ought to know whether you buy from us or not and it is yours for the asking. Write for it now and please mention which you are interested in—piano or organ.

Cornish Co. WASHINGTON, N. J. Established Over Half a Century

## ELBURN H-2, \$225

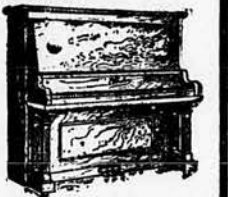
THE MOST POPULAR PIANO IN THE SOUTHWEST.



The Elburn has become the factor in home life of the Southwest. Hundreds of satisfied owners are spreading its reputation for quality and durability. We have often said, and we repeat it now that the Elburn H-2 is the BEST PIANO IN THE WORLD FOR OUR PRICE OF \$225. It is made after our own plans and specifications. We know that the quality of the material that goes into it is superior. We want you to see the Elburn H-2, to test it and to realize that all we say of it is true. Therefore, we will send the Elburn to you, freight prepaid. Try it carefully; have all your friends try it, and if it is not all we represent it to be, return it at our expense. You run no risk. The trial will cost you nothing.

USED PIANOS—SCORES OF BARGAINS—many of them as good as new. All of them priced at one-third to one-half of their original value.

We are also factory distributors for STEINWAY, VOSE, WEBER, KURTZMANN, ETC.



Write for catalogs, Address Piano Dept. 1.

J. W. JENKINS SONS MUSIC CO., KANSAS CITY, MO.

## Tire Repairing



To cut the price of tire expense is the one desire of an Automobile owner. Here's the system; have your old tires and tubes repaired. We do vulcanizing DONE WITH SMALL COST. Write for THE AUTO TIRE REPAIR WORKS, 104-8-8 E. 10th St., TOPEKA, KAN.

be saved and fried brown and all grease saved for cooking purposes. All fried meat grease and particles of congealed grease on the top of gravies, and liquor in which ham has been boiled should be strained through thin cloth and put into a stone jar for future use. Grease from the top of gravies and liquors should, of course, have all water removed by simmering slowly over the fire in an iron frying pan, until the particles which fall to the bottom are brown. Such grease is not to be despised for frying potatoes, pancakes, doughnuts, greasing bread pans, frying chicken or making pie crust for common use. The flavor it gives to the food is considered by some par excellent.

The following are a few good recipes for keeping meats, gathered at random by the writer:

**Sausage:** In making sausage cut the fat well out if you do not like it so greasy. Chop the meat very fine, if you prefer it add six pounds lean beef to forty pounds pork. Season; to forty pounds meat, 1 pound salt, one-fourth pound pepper, and one-half pint sage. Mix well together. If you like savory sausage season with sage, pepper, cloves, nutmeg and salt.

**Sausage for winter and immediate use** may be packed closely in stone jars and covered with melted lard and set away in a cool place. Sausage for summer use should either be fried or baked. To bake, fill stone crocks with the sausage and bake in the oven until thoroughly done, cook moderately slow. When done pour over the sausage melted lard; when cold tie up and set away in cool place of even temperature. To fry, make into small cakes, fry until thoroughly done, place the cakes in jars or tin syrup buckets or fruit cans and pour melted lard over them. If preferred seal same as fruit, keep in a cool place.

**Scraps:** Every farmer of course uses the scraps of meat for making head cheese, scrapple, liver sausage, souse, etc., and each housekeeper has her own recipes for preparing them.

**To Fry Down Beef:** Fry the beef until thoroughly done in beef tallow or lard, seasoning to suit with salt or salt and pepper; put into a stone jar and cover well with hot tallow or lard. All bones should be removed from beef, and some prefer to trim off all fat. When cold tie up and set away same as fried down pork. It is best to put fried down beef or any kind of meats away in small jars, so that only a small quantity is opened at one time. Beef put up in this way will keep perfectly for summer use.—F. L. Fields.

## No. 8751. Ladies' Shirt Waist.

No woman feels that her wardrobe is complete without a sufficient number of shirt waists, and in planning for a supply, this practical design will be found most desirable for general wear. Percale, gingham, seersucker, lawn or linen may be used. The back is plain, with a slight fullness at the



belt. The front has a center box plait with two wide tucks on each side of it. The sleeve is the regular shirt model. The pattern is cut in 6 sizes: 32, 34, 36, 38, 40, 42 inches bust measure. It requires 3 1/2 yards of 24 inch material for the 36 inch size. A pattern of this illustration mailed to any address on receipt of 10 cents in silver or stamps.

No. 5872. Ladies' House Apron. Pretty and dainty aprons are in great demand this season, and many new designs are shown. The one illustrated is quite novel and dressy and will protect the front of the waist



as well as the skirt, as the bib comes up over the shoulder, and fastens in the back. Narrow edging was used to finish the edges. Linen, cross-barred muslin, lawn, gingham, and nainsook are all appropriate. Two yards of 36 inch material will be required for the making. Ladies' apron, No. 5872. One size. The pattern here illustrated will be mailed to any address on receipt of ten cents in silver or stamps.



### I Promise To Save You \$37 to \$300 On a Gasoline Engine

GET my new 1911 Engine Book—and convince yourself. I'll positively prove just how I save you \$37 on a 1 1/2 H.P. and \$105.50 on a 5 H.P. Engine. No matter what power you need—or what work you want to do—be sure to send me your name. A Postal will do.

## 5 H.P. Gasoline Engine Only \$119.50 For Pumping and all Chores

The greatest work-saver and money-earner ever installed on any farm. The only other engine that compares at all with this Galloway is sold for \$225. Here I save you just \$105.50 and give you a better engine. Equally large savings in proportion on all other sizes. Just send for My Engine Book and astonishing proposition. It gives you the real reasons why Galloway, with his enormous factory, and the steady trade of thousands of his farmer friends can offer the best Gasoline Engines and save you from \$37.00 to \$300.00. And every Engine is covered by the Galloway guarantee, and sold to you on 30 days to 365 days free trial. I want to make you my special proposition. Just send me your name on a postal. Address me personally, Wm. Galloway, Pres.

Wm. Galloway Company 385 Galloway Station Waterloo, Iowa

Get This Free Book



GUARANTEED THE SIMPLEST AND STRONGEST OPERATED AUTOMATIC GATE ON THE MARKET. MONEY REFUNDED IF NOT SATISFACTORY IN EVERY WAY. ADAMS & ADAMS 1003 N. KAN. AVE.—TOPEKA, KAN.

FENCE STRONGEST MADE. Built from thick iron. Sold to the user at Wholesale Prices. We Pay Freight. Catalogue free. COILED SPRING FENCE CO., Box 255 Winchester, Indiana.



Cyclone Ornamental Fence will give the outside of your home the finished appearance that curtains give the inside. It takes away that look of something lacking.

## Cyclone Ornamental Fence

is made of large wires, heavily galvanized. Heavy upright wires are firmly seated in the cables, forming an immovable joint. Easily put up on wooden or iron posts. Made in many attractive designs. We guarantee it fully.

CYCLONE FARM GATES are strong, durable and light on posts. Frames are of high-grade carbon steel and fabric of heavy, closely woven galvanized wire. Will turn any stock.

Write us about how many feet of fence and the number of gates you need. We will send catalog free.

Cyclone Fence Co., DEPT. 131 WAUKEGAN, ILL.

## For Your Farm

You need the Unadilla, best and most complete silo ever made. Continuous door front. Doors lockable at any height. Cannot stick. Always out of the way—makes silage removal easy. Doors O. G. jointed, cannot warp, crack or split. Our patented fastener makes convenient ladder.

## Unadilla Silo

means more farm profits for you. Built to last, it never needs repairs. Air-tight, keeps your silage sweet and pure. All hoops are specially made and can easily be adjusted while standing on our patented ladder.

## Write For Free Book

Telling how the Unadilla Silo adds profits to your farm. Tell us how much stock you want to feed. We'll send you the book and tell you the size Unadilla Silo you need. Write today. AGENTS WANTED. HAWKINS MFG. CO., 623 9th St., Des Moines, Ia.

## "Jones Jewel" \$21.50

Test it for 30 Days In Your Own Home Only



This is the Best Value Ever Offered. We will sell Wholesale Price and save you the middleman's profit. In order to prove this, and also prove that the "Jones Jewel" really is the best value ever offered, we make you the following liberal offer: Order one of these separators and use it your own way; test it by the most severe test that can be given a cream separator and if after thirty days you are not perfectly satisfied that it is the best value you ever saw, you may return it and we will refund your money.

## FREE CATALOG

Write today for our big free Implement catalog. All kinds of Farm Implements at wholesale prices direct to consumer. JONES, POST & CO. Successors to JONES BROS. MERCANTILE CO. 815 Liberty St. Kansas City, Mo.

HOW TO RAISE CALVES without milk. Use Blatchford's Calf Meal. Ask your dealer. Write D. O. COE, Topeka,

## Let Us Send YOU One

of our Automatic Combination Tools for a 10-day free trial. It is made of malleable iron and steel and guaranteed for one year. It stretches wire fences, pulls posts, lifts heavy weights and loads; can be used as a wrench, press, vise, etc. Weighs 24 lbs. Lifts or pulls 3 tons. We need Agents—Salesmen—Managers to represent us. Double your earnings and earn \$25 to \$50 weekly. Sell on sight to every farmer, teamster, mill, factory and mine. Mr. Doney, Ind., sold 125 in 3 weeks. Mr. Cooper, Cal., ordered 500, had no experience. Mr. Williams, Ill., made \$175.00 in 2 weeks. No experience necessary. We teach you free. Free sample to hustlers. Send no money—just your name and address and give name of county in which you reside. AUTOMATIC JACK CO., 164 Main Street, Bloomfield, Ind.

# EMPIRE BUILDERS

By FRANCIS LYNDE



## THESE TWO BOOKS SHOW NEW WAYS TO GREATER PROFITS

We have put into these books, a life time's painstaking experience in tree growing. They cost a great deal of money, besides the time, effort and experience to write them. They are yours for the asking. We'll send them gladly, postpaid. You will surely appreciate them. The one thing which will interest you is

## CATALPA SPECIOSA

It is easier and more certain to make money with Catalpa than with corn or wheat. We want to prove that to you, so you will believe it as fully as that when it rains it is wet. You to be the judge.

### SEND FOR THESE FREE BOOKS

We are the largest growers of Catalpa in the world. We have more than 5,000,000 Catalpa trees now growing. Every one of them from seed that has passed the inspection of the U. S. government experts. We were the first to show the public the value of the genuine Catalpa and the worthlessness of the common kind. Our book tells the whole story. They also tell about our wonderful Winfield Black-Cap Raspberry. Originated in Kansas. Earlier than the earliest Black-Cap. Also about our other extraordinarily fine small fruits—and our full line of general nursery stock. Our free books are a liberal education on quality trees. They will most surely profit you, even if you don't write us another word after you get them. Can't we have your reply by return mail? Just send a postal card and they'll come at once. You will be surprised at the interest you will find in them.



**WINFIELD NURSERY CO.**  
WINFIELD, KANSAS

**Hardy "Blizzard Belt" FREE Giant Strawberry Plants**

Everybody likes fine strawberries, and to prove that our new GIANT variety is the largest and strongest grower, as well as the heaviest fruiter, we offer to send you TWO PLANTS (worth 30 cents) absolutely FREE. We have picked 12 quarts of fine berries from a test bed grown from but two GIANT plants set the year before. You can do as well, and at the same time raise young plants for a new bed. If you care to send 10 cents for mailing expense, we will add 5 BABY EVERGREENS 2 years old, and send all to you at proper planting time in the spring. It will pay you to get acquainted with our "HARDY BLIZZARD BELT" Trees and Plants. Write to-day and we will reserve the plants for you and send you our catalog by next mail. Address

**THE GARDNER NURSERY CO., Box 325, Osage, Iowa**

**We Buy and Sell All Kinds of the BEST FIELD AND GRASS SEEDS**

ALFALFA, MILLET, CANE, CLOVER, TIMOTHY, KAFFIR, POPCORN, SEED CORN, GRASS SEED, ETC. Write For Prices On Any Quantity.

**J. G. PEPPARD, 1119 West 8th St., KANSAS CITY, MO.**

**NEW KHERSON OATS**

Ratekin's New Kherson Oats imported from Russia. No variety of oats in existence has stood as thorough tests and shown capability to withstand drouth or wet weather as our New Kherson Oats. Yields 20 to 30 bushels more per acre than common oats. Strong stiff straw; sprangled heads; ripens early; never rusts, blights, nor lodges. There is none like them. Order early before our stocks are exhausted. Samples Mailed Free, also our big illustrated catalog of farm, field, grass, and garden seeds. A postal card will bring it to your door. Address, **RATEKIN'S SEED HOUSE, Shenandoah, Iowa.**

**SEED-CORN** Write for Prices — **Geo. T. Fielding & Sons** Manhattan, Kansas

**TRENT'S SEED CORN** First Prize Five Successive Years at State Show at Manhattan. This proves beyond a doubt that I have the best strains of Seed Corn in the West. Reid's Yellow Dent and Boone County White, fire dried, tested and guaranteed. Pure Red Texas Seed Oats, Clover, Timothy and Alfalfa Seed. Write for free catalog. Every farmer should have it. **BROWN CO, SEED HOUSE, S. G. Trent, Prop., Hiawatha, Kan.**

**Commercial White Corn** I have 600 bushels of the best quality Seed of this variety. We have been growing it two years and consider it the best corn that grows. For prices and description address. **F. W. DIXON, Holton, Kansas.**

**COFFEE ONE-CENT PER POUND**

**Salzer's French Bean Coffee (SOJA HISPIDA)**

A wholesome drink! The healthiest ever; you can grow it in your own garden on a small patch 10 feet by 10, producing 50 lbs. or more. Ripens in Wisconsin in 90 days. Used in great quantities in France, Germany and all over Europe.

Send 15 cents in stamps and we will mail you a package giving full culture directions, as also our Mammoth seed catalog free; or send 51 cents and get, in addition to above, 10,000 kernels unsurpassable vegetable and flower seeds—enough for bushels of luscious, different vegetables and brilliant flowers.

**JOHN A. SALZER SEED COMPANY**  
225 South 8th St. La Crosse Wis.

**TREES** of all kinds AT WHOLESALE PRICES. Save agent's commission of 40 per cent by ordering direct from us. Stock guaranteed first-class. Certificate of inspection furnished. Don't delay. Send for price list now. Address Box O. Pure Speciosa Catalpa grown by seed from original trees. **WICHITA NURSERY, Wichita, Kansas.**

**SEED CORN** SPECIALLY BRED TO COMBINE HIGH YIELD AND FINE QUALITY

Our corn has taken forty sweepstakes and first prizes at State, Interstate and National Corn Shows during the past three years. Yield in excess of 100 bu. per acre three years in succession. Who can surpass our record? Send for circular. **J. M. GILMAN & SONS, Leavenworth, Kansas, R. 1.**



"WHAT YOU SAY GOES."

**SYNOPSIS OF PRECEDING CHAPTERS.**

Stuart Ford, superintendent of the Plug Mountain branch of the Pacific Southwestern railroad, and Jack Frisbie, constructing engineer, determined to make the branch pay. Ford went to New York to see President Colbrith, and on the train helped a young lady who had lost her purse. At President Colbrith's office Ford met Chas. Adair, a nephew, who succeeded in getting his uncle to advance the capital necessary to get control of the majority of stock. Ford returned to Chicago and President Colbrith came west with a party, one of whom was the young lady Ford had assisted, Miss Alicia Adair. After a long, hard fight Ford succeeded in floating the stock and the bonds were sold to a Dutch syndicate. Superintendent North, Ford's enemy, and Brian MacMorrogh, a contractor, went to New York for a conference with President Colbrith, which resulted in President Colbrith giving the contract to MacMorrogh Bros., and ordering Ford to consult North in all cases of doubt. Ford then visited the mining camps where railroad right-of-ways were in dispute, found that saloons and gambling halls were running, and bought a half interest in the Little Alicia mine. President Colbrith was influenced in the appointment of John C. North as first vice president and general manager. In the midst of the fight regarding the laying of the new branch, President Colbrith arrived from New York with a party of friends. In his car, Miss Adair, in a conversation with Ford, learned the condition of the camps. President Colbrith ordered his train run over Plug Mountain at night, which nearly resulted in a collision with a freight train.

was less effusive, but no less cordial. It was a rare thing to see one of the company's directors in the Denver business offices. Mr. North was of the opinion that it would be a good investment of time and effort for all concerned if the members of the board used their privilege oftener. So on through half a dozen polite time-killers to the reluctant query: What could the general manager do for Mr. Adair?

Given leave to speak, Adair stated his needs succinctly. He wanted a special train to Saint's Rest; he wanted it suddenly, and he asked that it be given the right of the road.

"My dear sir!" protested the vice-president, "you mustn't talk impossibilities! You shall have the train at once, of course; you shall have my private car. But when it comes to the right of way, you'll have to appeal to Mr. Ford. Why, he doesn't scruple to lay out the United States mails for his material trains!"

"Um," said Adair. "Where can I reach Ford?"

Mr. North did not equivocate; he never lied when the truth would answer the purpose equally well.

"He is out on the extension; or more correctly speaking, somewhere beyond the present end of the construction telegraph line. I'm afraid you couldn't reach him by wire."

"And the president?" queried the visitor.

"Mr. Colbrith's car is at the end-of-track. You wished to join the party in the Nadia?"

"That is what I had in mind," said Adair, not too anxiously.

Mr. North shook his head. "I don't think you'd enjoy the run over the construction track. Mr. Colbrith went over it last night because—well, because he believes it to be a presidential duty to inspect everything. If you leave to-day, you will probably meet the Nadia coming out—possibly at Saint's Rest."

Adair suddenly became wary. "Perhaps that would be the easy thing to do," he said. "I suppose the engineers at Saint's Rest could put me up if I have to stay there over night?"

"You needn't ask them. You will have my car—with the best cook this side of Louisiana. Keep it, live in it, till Mr. Colbrith picks you up on his return."

"All right. But you'll give me the special. And let it make as good time as it can, Mr. North; I'm fierce when I have to ride a slow train."

The vice president's promise was freely given; and to expedite matters, the division superintendent's chief clerk went down to the station with Adair to see the special train properly equipped and started on the mountain-climbing run. Adair left the details to this orderly from the general offices; not knowing how to compass them himself, he had to. If he could have seen the broad grins on the faces of his train crew when Dobson, the clerk, gave him the despatcher's order—but at that moment he was lounging in Mr. North's easiest chair in the central compartment of the "01," reading for the twentieth time a crease-worn telegram.

**CHAPTER XIX. THE RELUCTANT WHEELS.**

IT WAS possibly an hour after Penfield's cipher message reached the Southwestern Pacific's headquarters in the Colorado capital, when a fair-haired young man in London-cut clothes, and with a tourist's quota of hand-luggage, crossed the Denver Union Station platform from the Pullman of a belated Chicago train.

Ascertaining from a gateman that the Plug Mountain day train had long since gone on its way up the canyon, the young man left his many belongings at the check stand and had himself driven up-town to the Guaranty Building. It was Eckstein who took his card in Mr. North's outer office. The private secretary was dictating to a stenographer, and was impatient of the interruption. But the name on the card wrought a miracle.

"Mr. North? Why, surely, Mr. Adair. He is always at liberty for you. Right through this way"—holding the gate in the counter railing at its widest—"we're mighty glad to see you in Denver, always."

Adair had acquired the monocle habit on his latest run across the Atlantic, and to keep in practice he gave the secretary the coldest of stares through the disconcerting glass. "Really! I'm quite delighted. Who is the other member of the 'we,' Mr.—er—er—"

"Eckstein," prompted the secretary; but he said no more, being prudently anxious to be quit of the transfixing stare before a worse thing should befall.

In the inner room the vice president



















# Last Chance to Buy Daughters of Old King of Cols. 2nd Wednesday, March 1st, 1911, At Farm Adjoining Green King of Cols. 2d is Dead, This Will be About the Last Chance to Buy His Get 50 HEAD 50

7 tried sows—4 by King of Cols. 2d, 2 by Model Chief Again, 1 by Perfect, bred by S. E. Morton.  
13 fall yearlings—6 sired by King of Cols. 2d, 5 by G. C.'s Col., 2 by King Wonder.  
SPRING GILTS—Are tops of my spring crop, daughters of F. E.'s Col., Elder's Wonder, King of Cols. 2nd, G. C.'s Col. and G. C.'s Kansas Col. Out of dams by King of Col. 2d, and other great sires.  
Everything bred for spring farrow, tried sows to G. C.'s Col. and F. E.'s Col. Gilts bred to Elder's Wonder, F. E.'s Col. and G. C.'s Choice Goods by W. L. A.'s Choice Goods.  
Don't lose sight of the fact that this is the original Col. herd of Kansas and contains more Col. blood backed up by greater individuality than any other herd in the west. Among the real attractions in this sale will be King's Daughter by King of Cols. 2d, pronounced by good judges to be the best Duroc sow in the state. I hesitate to sell her but need the money and many breeders need the sow. I am in the business to stay and want to see them sell at profitable prices. Catalogs ready now. Write for one, mentioning Kansas Farmer. Free entertainment and a square deal.

AUCTIONEER—JAS. T. McCULLOCH.

Jesse Johnson will represent this paper. Send him bids if you can't come.

## FRANK ELDER, Green, Clay Co., Kans.



### WE WANT YOU to COME to LINCOLN AND VISIT OUR BIG BARN

### WE WILL NOT DISAPPOINT YOU

We have the largest and best equipped importing establishment in America. We have been importing horses for more than 30 years. We have imported the largest, strongest, and best bred

### Percherons, Shires and Belgians Europe Could Produce



Mr. Watson personally selects every horse we ship from Europe. He buys all of our horses from the six oldest and largest breeding firms across the water—firms which have been breeding the great show ring winners of Europe for more than 200 years.

We stand back of our horses.

Every horse we sell is guaranteed with a guarantee that is a guarantee, backed by \$300,000 capital and 30 years' good faith.

We want you to come to Lincoln and visit our big offering.

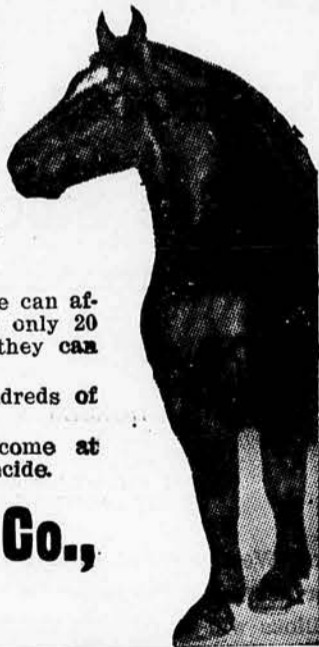
We ship horses from Europe in such large numbers that we can afford to sell them at a small profit in fact dealers who handle only 20 to 30 stallions and mares can buy them cheaper of us than they can import them.

Come to Lincoln and be convinced. We can save you hundreds of dollars on any animal you select from our barns.

Wire us that you will start in the morning. If you can't come at once, send for our big illustrated catalog. It will help you to decide.

## Watson, Woods Bros. & Kelly Co.,

Dept. 1, LINCOLN, NEB.



### DUNHAMS' PERCHERONS

For forty-six years renowned as the best of the breed. Six large importations since February 1, 1910 (the last arrived October 12th), insure fine selection, as each animal was individually selected for size, bone quality and excellence. If you want choice stallions or mares, write for catalogue, illustrated from life.

W. S., J. B. & B. DUNHAM  
WAYNE, ILL.



### Percherons Belgians and Shires

Also Shetland Ponies. Will have a good importation of stallions of the breeds mentioned Jan. 1. Now offering special bargains in mares to make room. Call on or write Joseph M. Nolan, Paola, Kan., 40 miles south of K. C. Please mention the Kansas Farmer.

### Percheron Stallions

I have as fine a bunch of stallions as you will find. I have the ton size, and 1,700 to 1,800 pound two year olds, with worlds of bone and great action. My prices are right and my horses are right.

Yours for home grown Percherons,  
J. W. BARNHART, Butler, Mo.

### PERCHERON HORSES, HOLSTEIN-FRIESIAN CATTLE.

Up-to-date Poland China hogs. Write your  
H. N. HOLDEMAN, Meade, Kansas,  
wants.

### REGISTERED HORSES

O. K. BARNES, SAVANNAH, MO.,  
W. E. Price, Proprietor.

Dealer in registered horses. Three very fine stallions to SELL AT ONCE. Also the best stud colt in the state. Write for description of stock. I can suit you.

THE BEST IMPORTED HORSES, \$1,000 each. Home-bred, registered draft stallions, \$200 to \$600 at my stable doors. Address  
A. LATIMER WILSON, Creston, Iowa.

HOME-BRED DRAFT STALLIONS \$250 to \$600; Imported stallions, your choice \$1,000.  
F. L. STREAM, Creston, Iowa.

When writing advertisers please mention Kansas Farmer.

### PERCHERON IMPORTING CO. AT THE FOUR BEST SHOWS IN THE WEST WE WON:

12 times champion stallion any age.  
6 times champion group of five stallions. 29 times first in stallion classes.  
Champion Percheron stallion at Inter-State Fairs.  
Champion Percheron stallion at Missouri State Fair.  
Champion Shire Kansas and Missouri State and Missouri State Fair.  
Champion Belgian Kansas, Missouri and American Royal.  
All our horses are imported. We sell as low as anyone on earth, quality considered. Our guarantee and insurance are the best.  
PERCHERON IMPORTING CO., South St. Joseph, Mo.



### W. H. RICHARDS, Importer PERCHERON AND BELGIAN HORSES.

A car load of extra good 2-year-old and 3-year-old stallions recently arrived. Come and see these magnificent horses before you buy a stallion. I will make you some eye-opener prices just now. Barns only four blocks from A., T. & S. F. depot.

EMPORIA, KAN. EASY TO GET THERE.

C. H. PILCHER, Glasco, Kan. E. C. LOGAN, Beloit, Kan.

**COMBINATION  
Poland China Bred Sow Sale**

At the Fair Grounds, Beloit, Kansas

**Saturday, March 4th**

40 head of the kind that has brought attention to both herds from all over the state. A draft from the two herds that is the equal of any offering in the west this spring. Everything bred for early farrow to the best advantage to one or the other of the great herd boars in the two herds. The offering consists of 10 tried sows and 30 March and April gilts. Seven of the gilts are by Winning Graniteer, eight by First Choke by old Grand Chief, six by the sweepstakes boar Conqueror. Some are by Kansas Medium and Impudence E. L. The 10 tried sows are by old Glasco Chief, Winning Graniteer and Kansas Medium. Also some by Skylark, by Skybo he by old Grand Chief. Among the tried sows are such sows as Sweetness by Winning Graniteer, the dam of much of the recent show stuff represented in this sale.

Mr. Pilcher is well and favorably known as a breeder who shows at leading stock shows and as a winner of considerably more than his share of the blue ribbons, while Mr. E. C. Logan is one of the pioneer breeders of Mitchell county, the home of good stock, and is the president of the Mitchell County Fair Association and actively identified with the Mitchell County Breeders Association. His herd of Polands at Beloit is well and favorably known. Their catalog is ready and can be had by addressing either party.

**C. H. PILCHER, Glasco, Kan.  
E. C. LOGAN, Beloit, Kan.**

AUCTIONEER—JAS. T. McCULLOCH, CLAY CENTER, KAN.

Send bids to Jesse R. Johnson in their care, Beloit, Kan.

**Stock  
Show and Sale**

March 4, 5, 6, 7, 8, 9, 10 and 11, 1911

**At Enid, Oklahoma**

**8 Days Exhibition of Fine Stock**

**Five Days Auction Sale**

**HOGS**  
100 Head  
Poland Chinas  
and  
Duroc Jerseys.

**CATTLE**  
100 Head  
Herefords  
and  
Shorthorns.

**HORSES**  
100 Head  
Standard Bred  
and all breeds of  
Draft and Coach.

Some of the best breeders in the Central West will sell in this sale. Terms of sale cash, but each consigner has a right to name his own terms, and a fine lot of Standard Ered stallions will be sold for one-third cash, balance on one and two years' time.

**F. S. KIRK, Sales Mgr.**

Enid, Oklahoma

Catalog free for the asking.

**J. E. Clary & Sons**

BIG SALE AT

**Sheridan, Missouri**

**Wednesday, Mar. 8**

10 head of extra fine Missouri and Kentucky bred jacks, from 2 to 7 years old. 30 head of horses and mules. 50 head of stock cattle, including 10 choice milk cows. 70 head Shropshire ewes, all bred to registered Shropshire ram. 40 head of Poland China hogs including 20 bred sows.

All jacks in this sale were bred and sired by us except two Kentucky jacks; all of them will compare favorably with jacks sold at the larger sales. Jumbo Mammoth, a 5 year old jack, black with white points, 15.2 hands high, extra heavy bone, extra head, neck and ear, weight 1,150 pounds, one of the best jacks in the country, will be in this sale, and the entire lot are extra fine. Every animal in this sale guaranteed as represented. All stock at buyer's risk after sold, but will be kept a reasonable time and loaded on cars free.

Sheridan is on the Chicago & Great Western R. R., 55 miles north of St. Joseph and 95 miles south of Des Moines, Ia. Four passenger train each way per day.

**J. E. Clary & Sons**

**Sheridan, Missouri**

AUCTIONEERS—COL. R. L. HARRIMAN, COL. J. W. EVANS, COL. JAS. HENSHAW.

W. J. Cody will represent Kansas Farmer. Sale commences at 10 a. n. sharp. Bids sent to auctioneers or fieldmen in our care will be honorably handled.

**"All Good Ones in the"**

**SUTTON FARM OFFERING**

**"Not a single bad one in the entire lot"**

**Thursday, March 2, 1911, Lawrence, Kan.**

**The View of the Owner**

I invite the Berkshire breeders of America to attend my public sale of "All Good Ones" at Sutton Farm, Lawrence, Kan., March 2, 1911, and see the grandest lot of Berkshires ever offered at public sale.

My herd is rich in the blood of Berryton Duke, Jr., acknowledged by all to be one of the truly great sires of the breed. Berryton Duke Jr. has no superior as a breeder; all who have seen his litters marvel at their wonderful uniformity. He breeds good heads—fancy heads, if you please—and with these fancy heads he gets as much size and feeding qualities as any living boar. Many breeders firmly believe that he sires more good headed good hogs than any living sire. Come to the sale and see for yourself.



Very truly yours,  
**CHAS. E. SUTTON.**

Offering will consist of 15 yearling sows, every one a good one. 25 ten months old sows, every one a high class individual. 10 open gilts, every one a show gilt. 3 boars that are outstanding.

The sows belong to such famous families as the "Jewels," "Royal Beauties," (Gentry) "Black Robinhoods," "Masterpiece," etc., and will be bred to either Berryton Duke, Jr., Charmer's Duke 29th or Artful Masterpiece—a trio of great breeding boars. Come to sale or send bids to O. W. Devine, who will represent Kansas Farmer.

**CHAS. E. SUTTON,**

Lawrence, Kansas

# SPECIAL SALE

# JACKS and JENNETS

## MARCH 1, 2, 1911

5th ANNUAL SPECIAL  
SALE OF

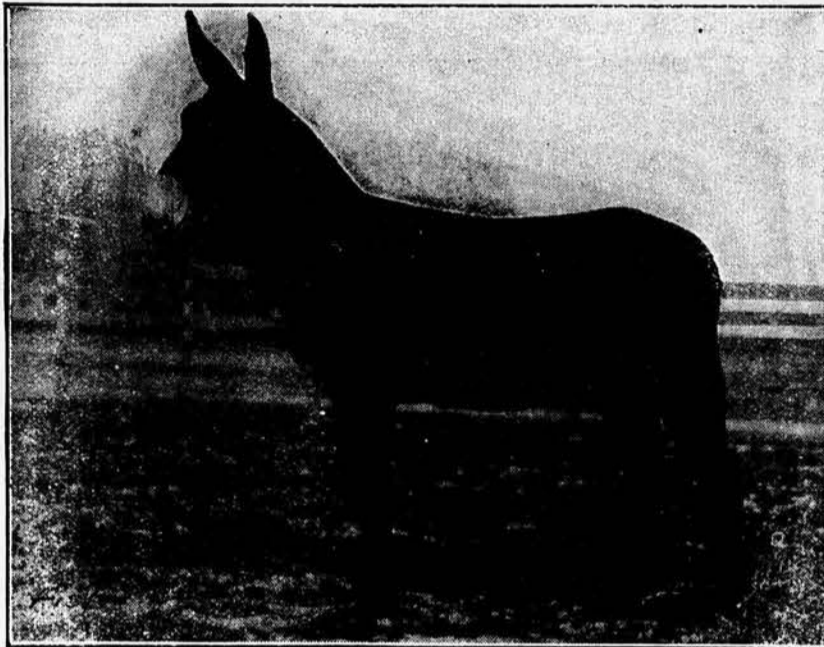
## JACKS AND JENNETS

Lafayette County

JACK FARM

One mile east of Higginsville, on  
main line of C. & A. and Lexington &  
Sedalia Branch of Mo. Pacific, 55  
miles east of Kansas City.

Send for catalog. Come to my sale.



100 Head High-Class  
Registered Black

## JACKS AND JENNETS

Every animal registered and guaranteed as represented. Nothing priced or sold after catalogued. Free conveyance from town to sale. Catalogues will be ready February 1. If interested write for catalogue and come to the sale. You will not be disappointed, but highly pleased, as I am offering the best bunch of jacks that I have ever had the pleasure of offering to the public. They have been picked from the best strains of blood in Missouri and Kentucky. Every one a good one, with size and quality combined. I will be pleased to meet you and entertain you at my expense. Stop at the Arcade Hotel, opposite C. & Alton depot.

# W. J. FINLEY, Higginsville, Mo.

## LAKEWOOD FARM

The Greatest Breeding Establishment in the World

Our Percheron winnings at the recent Chicago International, which is conceded to have been the greatest Percheron Show ever held in the world, has never been equalled before.

At this great show, we won:

- CHAMPION STALLION, showing four of his get (CALYPSO)
- CHAMPION AMERICAN BRED STALLION
- RESERVE CHAMPION AMERICAN BRED STALLION
- CHAMPION MARE
- CHAMPION AMERICAN BRED MARE

Also TWENTY-FIVE other prizes. All of these CHAMPIONS were sired by the world's famous CALYPSO.

LAKEWOOD FARM IS HEADQUARTERS FOR THE BEST, and our prices are reasonable. Send for illustrated catalog.

H. G. McMILLAN & SONS, Props.

Rock Rapids, Iowa

# LAMER THE IMPORTER

50 head of imported Percheron  
and Belgian Stallions and Mares  
for sale at "Let Live Prices."  
Write for catalog. Prices right.

C. W. LAMER,

SALINA, KANSAS

## AVONDALE STUD FARM--CLYDESDALES

LARGEST IMPORTER AND BREEDER OF CLYDESDALES IN U. S.

Our winnings at the State Fair, including the Grand Champion Stallion of the International, 1910, is our best advertisement. Those wanting stallions or mares should write for catalog or visit the farm. To make room for other importations in February, we will make a special discount for next 30 days. We are 40 miles west of Peoria on the C. F. I. & P. Ry.

JOHN LEITCH, Proprietor, La Fayette, Ill.

## Imported Percheron and Belgian Stallions

A number of fine stallions from the famous Holbert Importing Co., of Greeley, Ia., are now for sale at Krause Feed Barn, New Hampshire Street, Lawrence, Kan. All of them young stallions in the pink of condition, ready for service. Horses Right. Prices Right. Communicate with George Robertson, Lawrence House, Lawrence, Kan., or better, come and see them.

A. B. HOLBERT, Lawrence, Kans.



## Percherons and Belgians

Our barns are full of the best Stallions and Mares we could buy in the old country; from 1 to 6 years old with plenty of size and quality. We pay no auctioneers or commissioners, but sell direct at prices that will interest you. A 60 per cent guarantee with every horse. Can show between trains.

Skoog, Reed & De Cow

Holdrege, Nebraska



## ROBISON'S PERCHERONS

For sale now, 100 head of stallions, mares and colts, of all ages. All stock recorded in Percheron Society of America.

ADDRESS BOX C,

J. C. ROBISON, Towanda, Kan.

FIELD NOTES

FIELD MEN.

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

PURE BRED STOCK SALES.

Horses.

Percherons, Belgians and Shires.
Feb. 28 and March 1, 2, 3, 1911—Breeder's Sale Co., Bloomington, Ill.

Combination.

March 4-11—Enid, Okla., Live Stock Show and Sales.

Jacks.

March 1, 2—W. J. Finley, Higginsville, Mo.
March 7—G. C. Ryan, La Plata, Mo.

Shorthorns.

June 4—C. S. Nevius, Chiles, Kan.

Berkshires.

March 2—Charles E. Sutton, Sutton Farms, Lawrence, Kan.

Duroc-Jerseys.

Feb. 27—Morgan & Kaump, Blue Rapids, Kan.
March 1—Frank Elder, Green, Kan.

Poland Chinas.

Feb. 28—W. R. Stump, Blue Rapids, Kan.
March 4—C. H. Picher, Glasco, Kan., and E. C. Logan, Beloit, Kan. Sale at Concordia, Kan.

May 12—C. S. Nevius, Chiles Kan.
Oct. 11—S. A. Hobson & Son, King City, Mo.
Oct. 21—W. C. Singer, Hiawatha, Kan.

Meriden, Kan., March 8, 1907.
Currie Windmill Co., Topeka, Kan.
Gentlemen: I received the Grinder all right and am well pleased with it.

A Correction.

Attention is called to the difference in the picture in the advertisement of the De Laval Separator Co., New York, as it appears on page 26 of this paper, and in the advertisement in Kansas Farmer for January 28 last, on page 7, and in the February 4 issue on page 18.

Saving Money on Implements.

A few years ago this editor plowed corn with a cultivator made by the Monmouth Plow Co., Monmouth, Ill. It was in all respects a first class implement.

Peckham Makes Fair Sale.

R. J. Peckham of Pawnee City, Neb. held his winter bred sow sale on February 15. In this sale he disposed of one of the best bunches of Poland Chinas of the season and at least \$10 per head below what they should have brought.

A P. Wright Sale Low.

Owing to a heavy rain and storm all over the state in general, the crowd reduced somewhat from the usual number. The heaviest rain of the season continued all day and many of the local farmers did not venture out.

John D. Ziller, Hiawatha, Kan. \$35.00
J. E. Bowser, Abilene, Kan. 35.00
F. C. McCracken, Pawnee City, Kan. 36.00
Fred Kerl, Pawnee City, Kan. 32.00

- Tex. \$107.00
J. W. Weaver, Maze, Kan. 29.00
J. M. Myers, Jefferson, Kan. 46.00
W. W. Weaver, Maze, Kan. 31.00

- Lot 58—Ulica, O. T. Harlow, Vesper, Kan., \$460.
SUMMARY.
23 stallions \$18,030, averaged \$783.91
22 mares \$11,020, averaged \$501.81
45 head \$29,950, averaged \$665.55



Three 2-year-old Percheron mares weighing three tons. At the Metz barns, Abilene, Kan., from which eight such horses were sold in the last ten days.

Robison's Percheron Sale.
With the exception of the sale which they made two years ago the sale made on February 4 was the best ever made by the Whitewater Falls farm.

- Petty Bros., Dispersion Sale.
Petty Bros. of Fairview Stock Farm, Sedalia, Mo., held their dispersion sale of registered jacks, Jennets and Percherons on February 16.

- JACKS.
1. R. E. Moody, Spearville, Kan. \$1205
2. Geo. Woodruff, Eldorado Springs, Kan. 810
3. E. C. Wade, Griggsville, Ill. 805

- STALLIONS.
Lot 1—Harshel, S. A. Milburn, Blackwell, Okla., \$1,050.
Lot 2—Icarion, Cottingham & Sons, McPherson, Kan., \$910.

- 7. Doolin Bros., Harris, Kan. 1015
8. Mike Alicorn, Sedalia, Mo. 210
9. L. M. Monsees, Smithton, Mo. 610
10. Joe Slabin, Eldon, Mo. 765

- Lot 14—Str Edmund, Barney Voth, Munsten, Tex., \$775.
Lot 15—Hanap, E. H. Baker, Bazaar, Kan., \$610.

- PERCHERONS.
30. A. J. Freeman, Parsons, Kan. 910
31. H. A. Rodermund, Lincoln, Mo. 553
32. J. H. Herring, Murphysboro, Ill. 430

- MARES.
Lot 3—Gitana Cottingham & Son, McPherson, Kan., \$510.
Lot 4—Joyeuse, M. Clough, Eldorado, Kan., \$475.

- 1. Herman Groninger & Son, Bendara, Kan. \$42.00
2. W. A. Tiffany, Hiawatha, Kan. 30.00
3. J. E. White & Son, Chickasha, Okla. 45.00

- Lot 17—Girofla, George Perraud, Morganville, Kan., \$520.
Lot 18—Petria, O. H. Nelson, Kiowa, Kan., \$400.

- Gillemann's Holstein Sale.
Henry C. Gillemann, Station B, Omaha, has been selling Holstein cattle at the South St. Joseph stock yards for several years.

- Lot 26—Perclao, Harry Eschelman, Sedgwick, Kan., \$360.
Lot 27—Empress, Cottingham & Son, McPherson, Kan., \$555.

- 1. Andrew Chantland, Badger, Ia. \$230
2. W. A. Elliott, Pocatohas, Ia. 190
3. Chris. A. Jorgensen, Kimballton, Ia. 200

The Enid Sale.
The big combination sale at Enid will be held in connection with the stock show March 4 to 11. About 50 head of Poland China hogs and the same number of Duroc will be sold on Tuesday, March 7.

- Lee Gross Sale.
One of the big Poland China bred sow sales of the season was held February 15 by Lee Gross, the well known breeder of big Poland China hogs at Rodaway, Mo.

Sale Postponed to March 17.
Owing to the unfavorable condition of the weather the Miller & Manderschedt Poland China sale advertised for February 18 was postponed until March 17.

THE PERCHERON SOCIETY OF AMERICA.

Has just taken over all records and business of Percheron Registry Company of Columbus, Ohio. 215 breeders took membership in P. S. of A. during Dec. and January alone.

Paint at 85c a Gallon.
A strictly reliable, and fully guaranteed Red Barn paint is what you can buy, for 85c a gallon, freight prepaid, from the Sunflower Paint and Varnish Co., Fort Scott, Kan.

H. L. Faulkner's Sale.

H. L. Faulkner's sale of big spotted Poland Chinas, held at Jamesport, Mo., the afternoon of February 15, was well attended and the offering sold at prices that demonstrated the popularity of the big spotted Poland Chinas with breeders and farmers.

- 1. L. A. Robinson, McAby, Mo. \$81.00
2. F. B. Boyd, Jamesport, Mo. 68.00
3. Edgar Dooley, Eittersville, Mo. 65.00

Attention is called to the change in the card of Harry R. Coffey, Savannah, Mo. breeder of high class Shorthorn cattle.

"Ikey Stallion Buyer."

Be a "foxy stallion buyer." Try Iams, "The King Bee" horseman. He is giving all competitors a "horse-race." He sold double the horses in January as in any January in 29 years. He has "barn full" of prize winners and all of his largest and best horses on hand.



IAMS AND A SWELL PAIR OF IMPORTED PERCHERON AND BELGIAN STALLIONS. MODELS OF 120 PEACHES AND CREAM BLACK AND GRAY BOYS THAT MUST BE SOLD BY FRANK IAMS, ST. PAUL, NEB.

Choice Fall Duroc Jersey Pigs. Chapin & Nordstrom have just held one of their very successful bred sow sales and ask for a change of copy. They are now offering for quick sale at very attractive prices 50 choice fall pigs sired by G. C.'s Kansas Col. and Choice Col. by King of Cois. 2d They are excellent individuals and out of great sows that have been producing herd boars for several years.

Chapin & Nordstrom Make Good Average. Chapin & Nordstrom sale held at Clay Center, Kan., February 14, was well attended by breeders from Kansas and Missouri. The tried sows and fall gilts were well sold, but the spring gilts, many of which were not very well grown out and were bred late, sold rather low.

- 1. W. C. Whitney, Agra, \$60.00
2. J. G. Arbutnot, Cuba, 74.00
3. W. A. Sparks, Clay Center, 42.50
4. Fred J. Miller, Wakefield, 72.50
5. James Brannen, Clay Center, 39.00
6. W. T. Hutchinson, Cleveland, 56.00
7. Roy Ott & Sons, Concordia, 75.00
8. G. A. Avery, Riley, 42.50
9. E. P. Flannagan, Chapman, 65.00
10. W. C. Whitney, 109.00
11. W. A. Sparks, 41.00
12. J. M. Dunn, Hickman Mills, 80.00
13. A. C. Kohelberg, Drexel, Mo., 102.00
14. W. T. Hutchinson, 80.00
15. W. T. Hutchinson, 62.00
16. W. C. Whitney, 76.00
17. Fred J. Miller, 53.00
18. C. W. Ward, Shamrock, Mo., 60.00
19. A. C. Kohelberg, 75.00
20. Ward Bros., 37.50
21. Mike Hoffman, Green, 43.00
22. Geo. McMurry, Marysville Mo., 60.00
23. E. P. Flannagan, 65.00
24. Ward Bros., 61.00
25. Philip Young, Morganville, 36.00
26. Chas. Hagenbach, Morganville, 60.00
27. J. E. Lott, Smithville, Mo., 61.00
28. W. E. Monnesmith, Formoso, 55.00
29. Bert White, Clay Center, 36.00
30. L. D. Spellman, 39.00
31. A. T. Ericson, Leonardville, 41.00
32. A. L. Wylie, Clay Center, 38.00
33. Tom Thornton, Clay Center, 35.00

Bowser's First Sale a Success. J. E. Bowser of Abilene, Kan., held his first Poland China sale at the farm Friday, February 10, selling 43 head, many of which were late gilts and bred for late litters.

- 1. S. R. Barry, Manhattan, \$36.00
2. C. S. Carrothers, Salina, 45.00
3. J. A. Stoffer, Abilene, 34.00
4. George B. Ross, Alden, 42.00
5. Geo. Slater, Abilene, 36.00
6. W. H. Hanson, Abilene, 35.00
7. John Snyder, Manchester, 34.00
8. Fritz Meyer, Lincoln Center, 34.00

- 10. C. S. Carrothers, 38.00
11. J. W. Higin, Talmage, 36.00
12. C. S. Carrothers, 47.00
13. J. W. Higin, 33.00
14. O. E. Nichols, Abilene, 33.00
15. H. R. Ross, Abilene, 35.00
16. S. R. Barry, 36.00
17. Fred Meyer, 42.00
18. C. S. Carrothers, 40.00
19. Fritz Meyer, 34.00
20. H. R. Ross, 36.00
21. Paul Bryson, Abilene, 35.00
22. J. A. Stoffer, 37.00
23. John Snyder, 43.00
24. C. H. Ross, 36.00
25. John Snyder, Manchester, 35.00
26. Joe Copeland, Talmage, 37.00
27. J. E. Cress, Talmage, 50.00
28. Tom Murphy, Manchester, 38.00
29. Carl Wicks, Detroit, 50.00
30. T. W. Sifer, Abilene, 43.00
31. W. H. Hansen, Abilene, 52.00
32. John Baer, Abilene, 42.00

Samuelson Brothers' Sale a Success. The public sale of Duroc Jersey bred sows held by Samuelson Bros. at their Cleburne farm on February 9 was very satisfactory. While the offering did not bring quite as much as it should considering quality, the boys were very well pleased with the result.

- 1. Higgins Stock Farm, Abilene, \$50.00
2. J. J. Wiesendanger, Manhattan, 44.00
3. G. H. Carlson, Olsburg, 46.00
4. Higgins Stock Farm, 52.00
5. John Chelson, Olsburg, 43.00
6. John Chelson, 51.00
7. L. R. Benson, Cleburne, 46.00
8. C. R. Ekblad, Cleburne, 40.00
9. C. R. Ekblad, 47.00
10. G. H. Carlson, 39.00
11. Albert Heller, Riley, 50.00
12. J. D. Shepherd, Abilene, 49.00
13. J. B. Haley, Hope, 45.00
14. Fred Linqulst, Olsburg, 38.00
15. Albert Heller, 43.00
16. Wm. Walters, Riley, 37.00
17. J. H. Heller, Randolph, 41.00
18. G. M. Hammond, Manhattan, 34.00
19. Barton Thompson, Garrison, 35.00
20. G. M. Hammond, 46.00
21. Albert Nollie, 32.00
22. E. H. Erickson, Olsburg, 34.00
23. J. B. Haley, 44.00
24. Wm. Walters, 34.00
25. Lindbloom Bros., Cleburne, 33.00
26. John Chelson, 34.00
27. J. B. Haley, 35.00
28. G. M. Hammond, 35.00
29. Arthur Ekholm, Olsburg, 30.00
30. J. B. Haley, 39.00
31. Wm. Walters, 34.00
32. E. H. Erickson, 35.00
33. Arthur Ekholm, 35.00
34. Albert Nollie, 35.00
35. John Chelson, 36.00
36. Thompson Bros., Garrison, 35.00
37. Thompson Bros., 38.00
38. F. G. Johnson, Cleburne, 33.00
39. Arthur Ekholm, 34.00
40. Arthur Ekholm, 34.00
41. B. D. Cooke, May Day, 80.00
42. G. H. Carlson, 35.00
43. R. D. Cooke, 81.00
44. Gus Vogue, Olsburg, 82.00
45. Fred Linqulst, 42.00
46. Lindbloom Bros., 27.00

- 47. Wm. Heller, Randolph, 31.00
48. E. H. Erickson, 31.00
49. J. L. Benson, 36.00
50. Lindbloom Bros., 30.00
51. E. H. Erickson, 31.00
52. Wm. Heller, 29.00
53. Wm. Heller, 29.00
54. E. H. Erickson, 26.00
55. G. H. Carlson, 39.00

The Buchheim Duroc Sale. On Monday, February 13, Mr. F. M. Buchheim of Lecompton, Kan., held one of the most satisfactory Duroc Jersey bred sow sales of the season, and when the circumstances are considered, one of the best we ever attended. The long drought was broken by a heavy downpour of rain during the sale and this bad weather, together with the fact that the sale was held on Monday and about six miles from town, served to reduce the size of the crowd and make the average of \$41.00 all the more significant.

- 1. W. T. Jones, Independence, Mo., \$55.00
2. J. H. Correll, Lawrence, Kan., 42.00
3. J. H. Correll, 45.00
4. C. G. Swartz, Baldwin, 50.00
5. C. G. Swartz, Lawrence, 74.00
6. W. N. Sanford, Lecompton, 46.00
7. W. T. Jones, 63.00
8. Chas. Everhardt, Lecompton, 57.00
9. C. G. Swartz, 75.00
10. Kirk Fitzpatrick, Lecompton, 50.00
11. W. T. Jones, 59.00
12. Fred Sulzen, Lecompton, 43.00
13. C. C. Swartz, 40.00
14. A. E. Wilsey, Lecompton, 33.00
15. J. A. Leach, Baldwin, 30.00
16. Chas. McCleary, Lecompton, 37.00
17. Wm. Banning, Lawrence, 35.00
18. Ira Romig, Topeka, 44.00
19. C. J. Copp, Lecompton, 32.00
20. Wm. Fitzpatrick, Lecompton, 30.00
21. Fred Deskin, Lecompton, 28.50
22. Marshall Gray, Lecompton, 29.00
23. Wm. Cummings, Lawrence, 38.00
24. Wm. Cummings, 32.00
25. Wm. Cummings, 21.00
26. Marshall Gray, 36.00
27. Wm Fitzpatrick, 29.00
28. J. A. Leach, 31.00
29. T. F. Haas, Baldwin, 30.00
30. Wm. Cummings, 25.00
31. G. A. Anderson, Lecompton, 26.00
32. C. J. Copp, Lawrence, 40.00
33. Wm. Banning, 32.00
34. G. A. Anderson, 32.00
35. T. F. Haas, 31.00
36. Geo. Houk, Jr., Lecompton, 30.00
37. Chas. McCleary, 41.00
38. G. A. Anderson, 22.00
39. Marshall Gray, 20.00

White Bros. Make Good Sale. The White Bros. of Buffalo, Kan., were well pleased with prices received. Col. J. W. Sheets did the selling and was assisted by Col. Miller of Yates Center, who gave the valuable assistance in the ring work.

has made a record for growing and breeding some of the best Durocs in Kansas. They have one of as well bred herd boars in Buffalo Chief as we know of and he has proven a great sire of real-high, topsty stuff. Following is report for all selling for \$25: No.

- 1. J. J. Baker, Independence, Kan., \$36.00
2. H. A. J. Coppins, Potwin, Kan., 33.00
3. Sam Drybread, Elk City, Kan., 35.00
4. Louis Arthur, Neodesha, Kan., 30.00
5. Louis Arthur, 40.00
6. H. Lauber, Yates Center, Kan., 36.00
7. Louis Arthur, 47.00
8. Frank Drybread, Elk City, Kan., 31.50
9. A. P. Clow, Buffalo, Kan., 40.50
10. W. S. Gray, Neodesha, Kan., 42.00
11. W. S. Gray, 34.00
12. C. W. Lyons, Coffeyville, Kan., 41.00
13. T. C. Ryan, Yates Center, Kan., 40.00
14. T. C. Ryan, 37.00
15. C. B. Young, Rose, Kan., 44.50
16. A. R. Vice, Rose, Kan., 32.50
17. Frank Drybread, Elk City, Kan., 25.00
18. T. N. Smith, Chanute, Kan., 39.00
19. Geo. Clark, Rose, Kan., 40.50
20. E. R. Erickson, Rose, Kan., 28.00
21. J. J. Baker, Rose, Kan., 28.00
22. J. H. Martin, Buffalo, Kan., 46.00
23. E. Orland, Rose, Kan., 30.00
24. Virgil Cwren, Pierce City, Mo., 32.00
25. G. C. Norman, Winfield, Kan., 33.00
26. Frank Drybread, 31.00
27. J. Reed, Buffalo, Kan., 25.00
28. H. Lauber, 33.00
29. Frank Drybread, 31.00
30. Geo. Clark, Rose, Kan., 33.00
31. I. G. Moore, Buffalo, Kan., 30.00
32. Frank Drybread, 28.00
33. I. G. Moore, 29.00
34. D. R. Erickson, 50.00
35. Louis Arthur, 51.00
36. Sam Drybread, 47.50
37. Forty-three gilts averaged \$33.35.

Pelphrey Bros' Cattle Sale. The Shorthorn cattle sale held by the Pelphrey Bros. was a little below the average, some of the real good cattle sold low. It is probably a well known fact that any kind of grade milk cow without any pedigree will sell better than a pure Scotch cow that is a better milker and a good individual.

- 1. H. M. Hill, Lafontaine, Kan., \$180.00
2. John Wertz, Humboldt, Kan., 147.50
3. C. S. Nevlus, 105.00
4. C. S. Nevlus, 145.00
5. J. H. Holcom, Humboldt, 100.00
6. Dr. O. O. Wolf, Ottawa, Kan., 65.00
7. John Wertz, 75.00
8. H. N. Hill, 70.00
9. Jewell Bros., 122.50
10. J. H. Holcom, 97.50
11. John Wertz, 62.50
12. S. Kratzbach, Humboldt, 90.00
13. Forester Bros., 132.50
14. C. S. Nevlus, 100.00
15. J. H. Holcom, 37.50
16. S. Kratzbach, 100.00
17. Dr. O. O. Wolf, 30.00
18. Jewell Bros., 90.00
19. Scott McKinley, Humboldt, 72.50
20. S. Kratzbach, 90.00
21. Scott McKinley, 30.00
22. H. M. Hill, 95.00
23. Scott McKinley, 40.00
24. D. L. Holstin, Cherokee, Kan., 45.00
25. Jewell Bros., 87.50
26. S. Kratzbach, 35.00
27. C. R. Knapp, Rose, Kan., 67.50
28. H. M. Hill, 95.00
29. Forester Bros., 85.00
30. Dr. O. O. Wolf, 52.50
31. D. L. Holstin, 105.00
32. S. Kratzbach, 34.00
33. Tom Peckham, Moran, Kan., 67.00
34. The 32 head sold for \$2,551; average \$96.

# ROSES THAT BLOOM FREE and Bloom all Summer FREE

Roses, the mere name is an inspiration to garden lovers. It is impossible to describe the grace and beauty which can be added to home surroundings with an abundance of roses, lovely in flower, foliage and fragrance, luxuriating in sunny corners, filling them with exquisite color and delicious perfume. This entire collection consists of the valuable kinds of known merit, those possessing every attribute of perfection, responding eagerly and bountifully to every attention. They are the choice everblooming, which with proper planting and slight care will bloom this season and every month of the season. They are guaranteed to reach you in good growing condition and that each one obtaining this collection may succeed in growing fine roses, special printed instructions on how to care and plant roses will accompany each collection.

## RHEA REID

A wonderful new introduction possessing every quality a perfect rose should have. It is a strong, healthy grower throwing forth long graceful branches, which are densely covered with heavy, deep green foliage and handsome double flowers, which are produced in the greatest profusion all through the growing season. It has the vitality necessary to withstand all attacks of mildew and insects which so frequently destroy our best roses. The buds develop into large double flowers, formed of thick petals of excellent substance which retain their freshness and beauty for an extensive time. The color is a brilliant rich red, one of the richest reds in existence and the fragrance is delicious.

## YELLOW KAISERIN

To produce a yellow rose to meet all the requirements of beauty, rapid growth and free blooming habit has been the aim of rose growers in the past and now success has come in the production of Yellow Kaiserin. It is a robust rapid grower, very hardy, quickly making a well formed bush on which great masses of exquisite golden yellow roses are borne. A description is inadequate to portray the regal beauty of the elegant buds and flowers which are the glory of the plant. The fragrance is distinctive and delighting.

## PRESIDENT TAFT

This lovely new rose just introduced has taken every one by storm and after having seen it in bloom we can well appreciate their enthusiasm. It is a strong, healthy grower, throwing forth long, graceful branches, which are densely covered with heavy, deep green foliage and handsome double flowers, which are produced in the greatest profusion. The buds are formed of thick, smooth petals of excellent substance which retain their freshness and beauty of color, which is a sparkling bright pink.

## BESSIE BROWN

This charming white rose created quite a sensation upon its introduction, impressing every one with its extraordinary size and exquisite beauty. It has a hardy constitution and grows very rapidly. The large flowers are wondrously beautiful, composed of immense shell like petals, which are pure white, softly suffused pink. The buds are borne on strong, erect stems, freely and continuously, each one unfolding into magnificent flowers.

## LA FRANCE

Deservedly given the title "Queen of the Roses." From all quarters of the globe come reports of the wonderful masses of bloom produced by this variety from early June until frost. It is a robust healthy grower, quickly forming a shapely handsome bush the first season planted. No variety can surpass it in delicate coloring, silvery rose with pink satiny sheen over all the petals. The buds are elegant, large and pointed, possessing the most delicious fragrance and are only equalled in beauty by the open flower.

## CRIMSON RAMBLER

The most beautiful crimson climbing rose ever cultivated and a strong, rapid grower, quickly throwing up canes of great length and sturdiness, which are covered with beautiful peculiar shining foliage. The flowers are produced in immense clusters of from thirty to fifty blossoms in each cluster, the color of which is a vivid bright crimson. This rose is valuable for decorative hedges, arches and screens for porches or unsightly places around the home.

## HOW TO GET THESE ROSES FREE

Send us only \$1.00 for one year's subscription to Kansas Farmer, new or renewal, and we will deliver to you absolutely FREE this entire collection of six hardy everblooming rose bushes. If your subscription is paid in advance secure the subscription of a friend or neighbor and send it to us with \$1.00 and we will send you the rose bushes and also send the party whose subscription you secure the entire collection. These rose bushes will be sent you at the proper time for planting in your territory.

Address all orders

Subscription Department, Kansas Farmer  
TOPEKA, KANSAS

