

KANSAS FARMER

For the improvement



of the Farm and Home

Volume 54, Number 4.

TOPEKA, KANSAS, JANUARY 22, 1916.

Established 1863. \$1 a Year

Agri. Reading Room
JAN 23 1916

Wp2

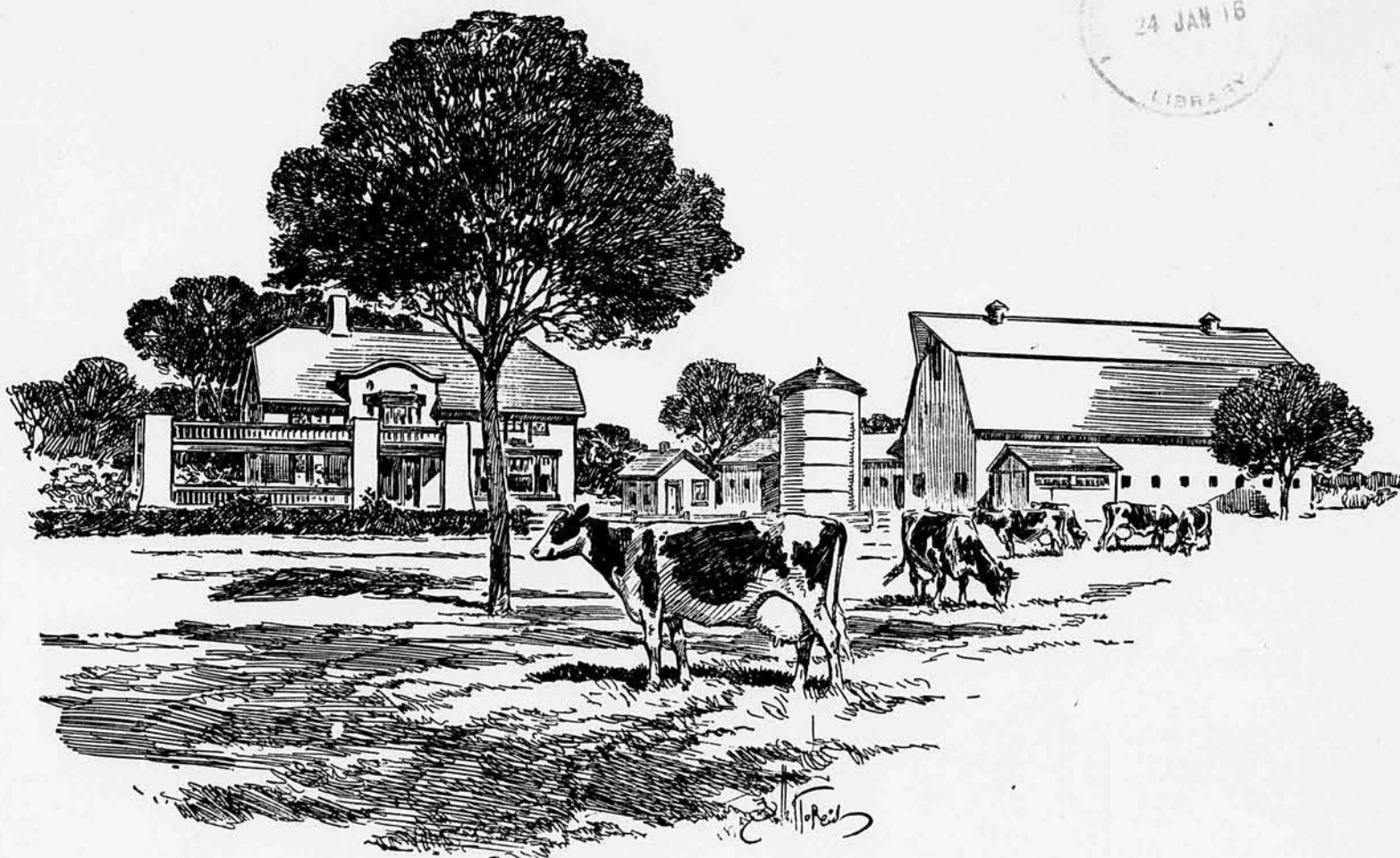
DOING the chores is frequently the most disagreeable work on the farm. Money invested in conveniences for handling manure and feed, or in piping water to where needed, lightens labor and brings a daily return.

Through lack of proper equipment many a needless mile is traveled. Poorly planned barns and yards greatly increase the cost of caring for farm stock. Every unnecessary step costs money and adds to the expense of the business.

Labor is usually the limiting factor in conducting farm operations. The most effective means of increasing the size and profits of the business is to invest money in making the labor more efficient.

The installing of labor-saving devices in the house, where the partner in the farm business must work, not only adds to her comfort but to that of the family as well, and increases the capacity for productive work from all. Money invested in a well planned, comfortable house with modern conveniences, will return good interest on the investment.

—G. C. W.



Money Invested in Well Planned Buildings Will Return Good Interest

Eastern Oklahoma



No soil in any country on earth can produce a greater variety of crops than that of Eastern Oklahoma

along the M., K. & T. Ry.

and it is also the stockman's ideal, as with good management live stock can feed on green pasture almost the year round. Winters are so mild and open that plows run every month; oats are seeded in February, and corn in early March.

J. T. Primrose, McIntosh County, Oklahoma, reports the following experience on 82½ acres in 1915. This is a very conservative example, for both the crop yields and the prices are comparatively low:

20 acres	Alfalfa, 80 tons at \$10.	\$800.00
8	Sorghum, yielded	
	700 gal. Syrup 35c	\$245.
22 bu.	Seed at \$2.50-\$55.	\$300.00
2	Potatoes, 2 Crops, 138 bu.	\$4.00
2	Sweet Potatoes, 150 bu.	75.00
1	Cotton	32.00
	Gross Receipts	\$1,291.00
	Rent \$5 per acre	162.50
		\$1,128.50

Send for free booklets

published by the Eastern Oklahoma Farm Bureau, composed of bankers and business men who have no land to sell but are interested solely in inducing practical, substantial farmers to settle and develop the fine farm lands there—lands at \$10 to \$60 per acre, which will raise as high as \$90 bu. of wheat, 75 bu. of corn, 80 bu. of oats and 6 tons of alfalfa a season. Write for these booklets now!

R. W. Hockaday,
Colonization Agent, M. K. & T. Ry.
1524 Railway Exchange. St. Louis, Mo.

MEN WANTED

LEARN TO DRIVE AND REPAIR AUTOMOBILES AND TRACTORS
Big demand for trained men. Earn from \$75 to \$150 per month. Learn in 6 weeks by the

SWEENEY SYSTEM
of practical experience. You do the real work in machine shop, factory and on the road. No books used. Tools free. **FREE** Big 64 page catalogue with views of men at work in largest and best equipped auto school in world. Send name today. Address

SWEENEY AUTO SCHOOL
1155 East 15th Street,
Kansas City, Missouri.

DON'T WEAR A TRUSS



Brooke's Appliance, the modern scientific invention, the wonderful new discovery that relieves rupture, will be sent on trial. No obnoxious springs or pads. Has automatic air cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Pat. Sept. 10, '01. Catalogue and measure blanks mailed free. Send name and address today.

C. E. BROOKS

1874 Brooks Bldg., Marshall, Mich.

\$12.00 Sweep Feed Grinder | **\$15.50 Galvanized Steel Wind Mill.**
We manufacture all sizes and styles. It will pay you to investigate. Write for catalogue and price list.

CURRIE WIND MILL CO.,
Seventh St., Topeka, Kansas

12½¢ FENCE **ECONOMY.**
Before you buy any more fence, write for facts about our 26-inch **ECONOMY HOG FENCE** at 12½¢. per rod. Many other styles and prices.

Keystone Steel & Wire Co.,
6857 Industrial St. PEORIA, ILL.

Corn Belt Mill
23 Days Grinds more ear corn or small grain, with less power, than any other mill. **FREE TRIAL** Doesn't warm the feed. Lathe-centered burrs may be changed in three minutes. Try it 20 days free. Write to-day for booklet.

Spartan Mfg. Co.,
102 Main St., Pontiac, Ill.

BOWSER SWEEP MILLS
Different from all others. Grind Corn with shucks. Kaffir in the head and all kinds of small grain. 4 and 2 horse sizes. (Also make 10 sizes of belt mills)

FREE Folder on "Feeds and Manures"

C. N. P. Bowser Co., South Bend, Ind.
Patterson Machinery Co., 1225 W. 11th St., Kansas City, Mo.

FARM FENCING PROBLEM

WIRE fences, particularly in the North Central states, are very generally replacing those of stone, wood, and hedge as the latter become unserviceable. Where high-priced land, scarcity of timber, and high wages for farm labor exist, the farmer can no longer afford to construct any but wire fence. The extent to which this fencing is now being used is shown in a recent report, published as Bulletin 321 of the Federal Department of Agriculture, which contains the results of investigations into the cost of fencing farms in the North Central states. In all of the twelve states from which data were obtained wire constituted more than seventy per cent of the fencing, and in Western Dakota, Nebraska, Kansas, and Northern Minnesota the percentage of wire was more than ninety-nine.

The general and increasing use of wire for farm fencing in this section has compelled the farmer to consider very seriously what system will be most suitable to his needs. A farm fence, says the bulletin already mentioned, should combine the two qualities of service and economy. To give satisfactory service it must be constructed so as to turn all kinds of stock without injury to them. To be economical it must be built as cheaply as is consistent with durability. The fence that is erected at a low initial cost is not necessarily economical, for it may be short lived.

In selecting a woven wire fence, it is preferable to economize by eliminating unnecessary wires rather than by using a lighter-weight wire. A fence the spacing in which is too wide to turn swine satisfactorily will prove quite adequate when only cattle, sheep, or horses are to be considered. The farmer, therefore, who keeps no swine, can save money by doing away with wires that are not needed. The factor which determines the price of woven-wire fencing is its weight, so that in fences of the same height a wide-spaced fence with comparatively few wires costs less than a narrow-spaced one with more wires. On the other hand, it is becoming generally recognized that the use of heavy wire in fencing is economical. The initial cost of the heavy wire is greater, but its durability is more than sufficient to offset this disadvantage. The labor and other costs in the construction of a fence are practically the same whether a heavy or light grade of wire is used, but with heavy wire the fence lasts so much longer that this cost of construction is distributed over a much longer time. That this is appreciated by a majority of farmers is indicated by the increase in the percentage of heavy wire that is being sold for fencing purposes.

For the general farm on which all kinds of stock are kept, and on which the rotations practiced call for temporary pastures, the common type of fence now being adopted in the North Central States is one which has approximately ten line wires and a total height of about four feet. The bottom wires are spaced about three inches apart. Such a fence constructed from all No. 9 wire with a strand of barbed wire on the top, Osage orange, locust, red cedar, steel, or cement line posts set a rod apart, and ends and braces of the same materials as for the line posts at distances of forty rods, can be constructed, it is figured, for 93½ cents a rod. This allows a labor cost of 9 cents a rod. The cost of the wire itself is estimated at 40 cents, the line posts at 28 cents, and the ends and braces at 12½ cents a rod. Such a fence is exceptionally durable

and should last approximately twenty-two years. Cheaper fences can, of course, be constructed with less expensive materials. Allowing for repairs, depreciation, and interest at 5 per cent on the investment, the total annual cost of upkeep for a fence such as the one described should be 9 cents per rod. In addition, the interest on the value of the land which the fence occupies, and thus withdraws from tillage or pasture, should be included.

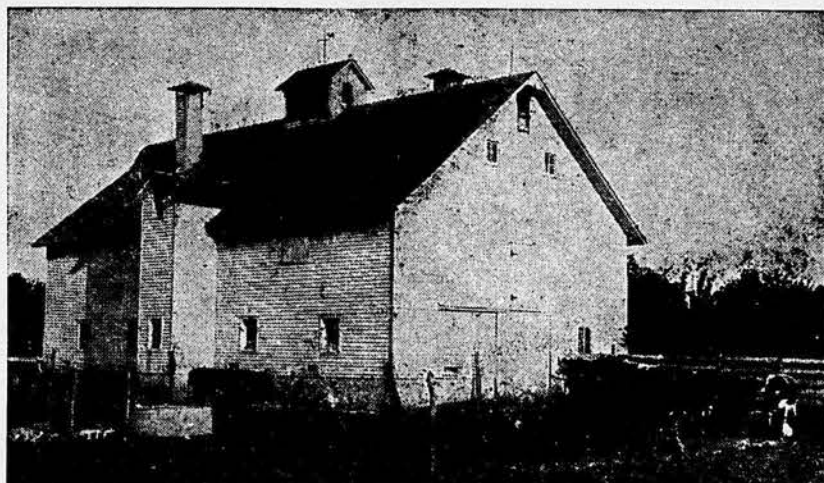
The growing scarcity of timber in the North Central States which has already resulted in popularizing wire fencing, is also increasing the cost of posts for these fences, and may ultimately result in a more general adoption of some substitute for a wooden post. The only kinds of timber fence posts which in their natural condition last on an average of more than fifteen years are Osage orange, locust, red cedar, mulberry, catalpa, and burr oak. The supply of all these is limited, and most of them in the areas where they are not native are high priced.

In the past, before wire fences came into such general use, Osage orange hedge was much used for fencing purposes, and many of these hedges have been allowed to grow up into trees from which posts have been cut. On high-priced land, however, this is not a profitable practice, because the hedge row consumes the fertility of much land that could be used to better advantage for crop production. The supply of locust timber is constantly decreasing, with a consequent rise in price, and most of the red cedar posts used in the corn-belt area have to be shipped from the Southern States.

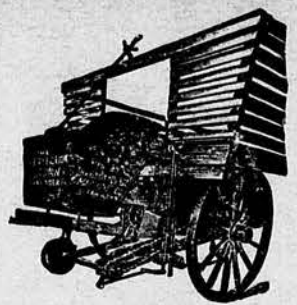
Under these circumstances, farmers are turning their attention to the possibilities of steel and concrete posts. The chief objection to steel posts, that they are bent by heavy stock rubbing against them, may be overcome both by the proper construction of the fence so that the strain is transmitted along the line to the end posts, and also by the use of heavier posts. Concrete posts are commonly believed to be especially durable, but to secure this quality great care must be exercised in the selection of materials and in the construction. Moreover, such posts should not be used for at least a month, or, better still, for three months, after they have been removed from the mold. On farms where sand and gravel are available, however, and where the work may be done at a season of the year when the labor might not otherwise be profitably employed, the construction of concrete fence posts is quite feasible. The concrete, however, must not be allowed to freeze.

Still another method of meeting the increasing cost of durable timber for fence posts is the use of preservatives on the cheaper kinds of wood. Creosote is the cheapest and most efficient of common preservatives, and short-lived timbers that are properly treated with it should withstand decay as long as the most durable woods. The treatment is simple and can easily be done on the farm. Detailed instructions on the subject may be obtained from the department.

Whatever form of fence post is adopted, it must be remembered that it is very poor economy to construct a fence in which the posts will decay before the wire does. In such an event the fence has to be restretched on a new set of posts, the cost of repairs will be considerably increased, and full efficiency will not be obtained from the wire.



MODERN DAIRY BARN ON FORTY-ACRE FARM OF J. W. BIGGER, SHAWNEE COUNTY. — PAID FOR FROM PROFITS OF BUSINESS



THE PERFECTION

STRAW SPREADER

GETS rid of those straw piles—whirls the wet, dry, chunky or frozen straw back onto your land in an even swath 16 to 20 feet wide—returns the nitrogen to your soil—makes a humus mulch that increases your yield—keeps the soil from blowing—spreads manure better and farther than any manure spreader made. Working parts are enclosed and run in oil bath. No forks or hooks to catch clothing. Costs less than a manure spreader and attaches to any rack or barge in two hours time. Light weight and light draft. If we have no dealer in your section

Send Us Your Dealer's Name
and address—we will see that you get a chance to see the "Perfection" and will also send you a pleasing souvenir.

UNION FOUNDRY & MACHINE COMPANY
Box B. Ottawa, Kans.

Build It Yourself

Here is the first real, practical idea for a perfect home-made concrete mixer ever yet produced. Endorsed by all farm papers, by concrete engineers and by hundreds of users. You make it with a few 2x6's, an oak barrel and a few castings. Send your name and get full instructions and

Blue Print PLANS FREE

It will mix 3½ cu. ft. at a batch, has self-tilting dump, runs by hand or 1 h. p. engine. Will keep from 2 to 6 men busy. Does finest work, equal to any \$200 machine—and costs you almost nothing in comparison. Just drop me your name on a post-card today. Full instructions and blue print plans will come at once. **FREE**

SHEDDEN MANUFACTURING CO., Box 2450 Nebraska, Neb.

Mix Your Own Concrete

GET IT FREE
We are giving Ropp's New Calculator **FREE** to every farmer or land owner who has not yet sent for a copy. Ropp's Calculator should be in the hands of every farmer. It will instantly give the correct answer to any business problem that can be solved by arithmetic. We will also send you our free illustrated catalog on

SQUARE DEAL FENCE
Which tells you why it is better than any other fence and where to get it. Land owners, if you want a farm fence that will last, and stay trim and tight the year round, write for these **FREE** books today.

Keystone Steel and Wire Co.,
723 Industrial St. PEORIA, ILL.

New Edition of Modern Silage Method
Only 10¢ **ENTIRELY** a new book—new chapters—tells facts about every type of silo—home made, stave, brick, cement, tile, metal, pit, etc. Tells best for your needs—impartial suggestions for making most profits. 264 pages—10 page index—Copyrighted Nov. 1914, covers 41 silage crops. Send for new book—it beats all previous editions. Write today. Mailed for 10¢. Mention this paper. **Silver Mfg. Co., Salem, O.**

Ditching and Terracing
Made Easy with the common sense **Marble Farm Ditcher & Road Grader** cleans out laterals—grades roads. **All Steel—Simple—Practical** Price only one-fourth of big machines. Does same work. Soon pays for itself. Ask your dealer or write for full information and introductory proposition. **Owensboro Ditcher & Grader Co., Inc.** Box 825, Owensboro, Ky.

FORD JOKE BOOK
All the latest and best funny jokes, and stories on the FORD automobile. Hundreds of them and all good ones. Also JITNEY jokes, Moving Picture, and Stage jokes. Laugh till you shake. A neat colored covered book by mail for only **TEN CENTS**.

PIKE PUB. CO., BOX 323
SO. NORWALK, CONN.



KANSAS FARMER

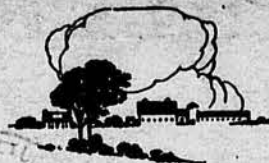
The Standard Farm Paper of Kansas

ALBERT T. REID, President
T. A. BORMAN, Editor-in-Chief

C. C. YOUNGGREEN, Advertising Manager
G. C. WHEELER, Live Stock Editor

Editorial, Advertising and Business Offices—Topeka, Kansas
New York Office, 41 Park Row, Wallace C. Richardson, Inc., Manager
Chicago Office, Advertising Building, Geo. W. Herbert, Inc., Manager

Entered at the Topeka post office as second class matter



JAN 16

BOARD OF AGRICULTURE MEETS.

The annual meeting of the Kansas State Board of Agriculture which was held in Topeka, last week, should have had a large attendance of farmers. A most valuable and useful program was given. The weather was cold and stormy and this kept many people away. Although the attendance was not what it should have been, it was fairly representative.

A great many seem to have the impression that this annual meeting is only for members of the board and the delegates sent to represent the various county agricultural associations. The splendid program prepared by the secretary of the board, is for all who will come. It is a state institution and is supported at state expense.

This year the members of the board seemed to take more than the usual interest in the work that is being done. They lingered after the formal public sessions had closed and discussed in Secretary Mohler's office, plans for doing more that would be helpful in promoting the agricultural interests of the state.

Several active young farmers have been elected to membership on the board in recent years, these being Dr. O. O. Wolf, Ottawa; H. W. Avery, Wakefield; and E. L. Barrier, Eureka. These men are leaders in their home communities. They are living on their farms and are in close touch with agricultural conditions as they must be met by those now in the harness. The new officers are: J. T. Tredway, La Harpe, president; R. B. Ward, Belleville, vice president; A. W. Smith, McPherson, treasurer; J. C. Mohler was re-elected secretary.

E. L. Barrier, who was elected to take the place of R. B. Ward on the board, is a breeder of Angus cattle and Poland China hogs. He has been instrumental in organizing the Kansas Angus Breeders' Association.

The members re-elected on the board, are: Thomas M. Potter, Peabody; T. A. Hubbard, Wellington; H. M. Laing, Russell; and E. E. Frizell, Larned.

ROAD-MAKING SCHOOL.

A school in road building is to be conducted at the Kansas Agricultural College, February 28 to March 4. This is a new departure in short course instruction. Its purpose is to give to county highway engineers, surveyors, county commissioners, members of township boards, road overseers, contractors, and others interested in roads, such information as will enable them to do better work in road building. The teaching program has been arranged by W. S. Gearhart, head of the highway engineering department of the extension division, and L. E. Conrad, professor of civil engineering. The instructors will be the engineers in these divisions, assisted by county engineers from various Kansas counties, and highway engineers from other states. Instruction will be given in the building of earth, clay and oiled earth roads, the testing of road materials, in the handling of road machinery, macadam road construction and maintenance. Highway laws will be studied, and much useful information will be supplied in general road management.

There will be no fees to pay, and there should be a large attendance at this first road-making school.

J. T. Bayer, a well known breeder of Shorthorn cattle and Berkshire hogs, died at his home near Yates Center recently. Mr. Bayer had long been a leader in his home community, and especially so in the matter of live stock improvement. He, and his father before him, realized the necessity for live stock in developing a permanent agriculture. He was one of the charter members of the Woodson County Stock Breeders' Association.

Spend a part of the winter's spare time in correcting the washed places on the farm. On nearly every farm there is an accumulation of brush, and this deposited where ditches have started, will greatly help in holding the soil. A few stakes should be driven to hold the brush in place. This practice persistently pursued, will work wonders in keeping your soil at home.

MARKET VALUE OF KAFIR.

Before kafir and the grain sorghums generally can take the place they should, feeders must appreciate the value of these grains for feeding purposes more fully than they do at the present time. A study of market reports would indicate that some progress is being made in giving kafir its right place as a feeding grain. It has come to be regarded as a splendid poultry feed and from this source comes a very active demand for the grain.

The average market price for kafir and other sorghums may be a little misleading as an indication of the real demand for these grains for feeding purposes. When there is very little kafir or milo on the market, the demand from chicken feeders is strong and they frequently are so anxious for it that they pay quite a premium. These high prices, of course, go into the year's average.

A writer from Western Kansas says that when they have a big crop of the grain sorghums they seem to go begging on the market. Feeders of live stock in the corn-buying territory of Missouri, Kansas, Iowa, and Illinois, do not seem to realize that they can buy these grains and use them in full feeding their stock. This writer says that farmers over the western territory are getting somewhat discouraged over this condition.

Even though the Eastern feeders are not taking kindly to the sorghum grains for feeding purposes, feeders to the west are using them more and more in full-feeding stock for market. Many cattle and hogs that have been fed on kafir, are going into the Kansas City market. This, in itself, will eventually teach the corn feeder the value of the grain sorghums for feeding purposes, and when a good crop is produced and kafir is being marketed, he will in time cease paying a premium for corn and will purchase kafir instead.

At the present time the Garden City Sugar & Land Company, which concern does a very large general farming business, is feeding five or six thousand cattle almost exclusively on kafir, milo, and feterita for grain. This company has studied out the cattle feeding proposition and knows exactly what can be accomplished by the feeding methods being followed.

The time is sure to come when feeders will use kafir or other grain sorghums when they can be purchased at prices slightly under the market price of corn. When that time comes both feeders and growers of the grain sorghums will be benefited.

"More money from wheat" is the title of a leaflet being sent out by the Soil Improvement Committee of the National Fertilizer Association of Chicago. This leaflet touches on some of the important points in wheat production. Top-dressing of wheat is referred to and in view of the fact that much wheat sowed last fall did not make much early growth, we believe this season is one in which the spreading of straw or barnyard manure on wheat will be especially beneficial. It not only furnishes winter protection, but gives some quickly available fertility so that the wheat will start and make rapid growth in the spring.

A daily gain of 2.02 pounds was made by fourteen spring pigs in a six weeks' test with a self-feeder at the Nebraska Experiment Station this winter. The cost per hundred pounds gain was \$4.04. In making the gains the pigs ate 64.5 bushels of shelled corn and 300 pounds tankage. The corn was charged at 63 cents a bushel and the tankage at \$2.50 per hundredweight. Computing the gains on the pigs at six cents a pound, a price of 99 cents a bushel was received for the corn fed.

If clover or alfalfa hay is used in the dairy ration, little of the expensive protein feeds such as oil meal or cottonseed meal need be added to balance the ration. Owing to the present high prices of corn, bran, etc., a limited amount of either oil meal or cottonseed meal seems to make a less expensive grain ration than if this is omitted.

FARMSTEAD IMPROVEMENT.

Make-shift buildings and other equipment are out of place on a farm where land values are as high as they now are in many parts of Kansas. Visitors to older farming communities always comment on the permanent nature of the improvements they see on the farms. Kansas is now coming into this stage of its development and many well planned houses and barns are being built.

Ordinarily the size of the farm business is limited by acres. This is the idea many farmers have and it explains why those with small farms are always anxious to buy some additional land, even though they may have to go without suitable buildings, fencing and other equipment to do so. The old motto, "Get a plenty while you're getting," might have applied when land was cheap, but now that it is costing in many places from \$50 to \$100 an acre, the buying of additional land is not always possible.

It is true that the size of the farm business has an important bearing on the profits that are made. The small farm may be handicapped by its limited acreage, but oftentimes the size of the business can be much increased by proper equipment. Suitable buildings for storing feed will increase the capacity for handling live stock. Comfortably housed milk cows will give more milk, and other live stock will be more productive in proportion as they are provided with suitable shelter. An increase in live stock means more barnyard manure, and this in turn will help increase the fertility of the soil so that it will produce larger crops. The use of fencing will save much waste. In many ways the provision of proper buildings and yards will make it possible to do a larger business without increasing the acreage.

The house in which the farm family lives should be included in this farmstead improvement. By having a comfortable, convenient house, the family will be contented and will do more and better work. Better buildings and improvements all along the line will help to make the farm pay better returns. There is always discontent and disappointment where the efforts put forth are not suitably rewarded, and working without needed conveniences is a common source of discouragement.

We are glad to note that the extension schools being held by the extension division of the agricultural college, are being well attended. Ten of these schools have now been conducted, the attendance ranging from 35 to 115. The idea seems to be becoming more popular. It gives splendid opportunity for people in the various communities to get together and study for a week the problems of the farm and home. Even now contracts are being made for schools to be held next year, and communities interested should by all means make their applications to the extension division at once. Only a limited number of the schools can be held since only a few people can be assigned to this work.

The International Institute of Agriculture in its December bulletin, gives its final official estimate on the production of various staple crops in the countries of the Northern Hemisphere. According to these figures the 1915 wheat crop is in excess of that of 1914, being 119.7 per cent of the crop of the preceding year. The crops of rye, barley, oats and corn are also estimated to be from 15 to 20 per cent in excess of the 1914 yields. These figures would indicate that the year 1915 has been an exceptionally good crop year the world over.

A study of the new seed catalogs will be not only interesting but valuable in selecting varieties for next year's planting. Many of these catalogs are now ready to send out and if you are not on the mailing lists of these concerns you should write for copies, which are free for the asking.

The great economic advantage of selling cream and butter only from the farm is that they take away practically no soil fertility.

WINTER STOCK LOSSES.

During the storm and cold wave which swept over the country last week, numerous reports of large stock losses appeared in the daily papers. If such losses occurred they were for no other reason than that proper feed and shelter had not been provided for the stock. In the early range days cattle were handled with no provision for the winter. Getting stock through the winter was a mere gamble. In bad winter cattle perished by the thousands. Just recently we heard the tale of an old cattle man who had 20,000 cattle at the beginning of a winter season—part of them in what was then Indian Territory, and the rest in Montana. At the spring round-up only 1,500 head could be found, and the worst of it was that this man had borrowed the money from a relative in Scotland to finance his cattle business.

It would seem that with the high price of cattle at the present time, no one would think of trying to carry cattle through the winter without making provision to shelter them from the severe storms, at least by windbreak, and feed them at least a maintenance ration. However, there are those here in Kansas and in localities where land is valued at \$100 to \$150 an acre, who attempt to carry cattle through the winter without making such provision. Last week when the storm was raging and the thermometer was seven degrees below zero, we saw from the train window, young cattle and cows out in a cornfield trying to get something to eat. These dry stalks had precious little feed value and from their appearance it was plain to see the cattle were suffering severely. Cattle that are compelled to get out and forage under such conditions in a stalk field, will lose more in a day than can be put back by two or three weeks of good feeding. If this feed had been stored in a silo or even cured as fodder and fed to the cattle in a sheltered feed lot, there would have been no such suffering, the cattle would have held their own and perhaps made some gains even during the severe weather. No greater loss takes place on the farm than that of so handling cattle in the winter that they come out in the spring in poorer condition than they went into the winter.

BREEDERS' MEETING SUCCESSFUL.

The Kansas Improved Live Stock Breeders' Association which met in Topeka last week, carried the program through without a break. The meeting came during the most severe weather of the winter, as yet, and because of this fact many breeders who had planned to come could not leave their stock.

The meeting closed with a session devoted almost entirely to the beef cattle subject. The paper read by James G. Tomson of Carbondale, on the subject—"Kansas as a Breeding Ground for Beef Cattle," was of unusual interest. In spite of the fact that the cattle market has been unsatisfactory during the past fall, more interest is being taken than for many years, in getting cattle on the farms. The Tomsons have always stayed by cattle, and experiences given in this paper were most helpful to those desiring to make a fresh start.

The new officers are: James G. Tomson, Carbondale, president; H. J. Cottle, Berryton, vice president; Phil Eastman, Topeka, secretary-treasurer. The following directors were elected: H. W. McAfee, Miss Louise Kreigbaum, G. C. Wheeler, R. F. Howard, W. D. Van Horn.

DEATH OF WM. H. BOWKER.

William H. Bowker of Boston, who died recently, was one of the pioneers in agricultural education. He was the first graduate of the Massachusetts Agricultural College, and through all his life used every effort possible to pave the way to a greater agricultural prosperity. Mr. Bowker early identified himself with the fertilizer industry and is best known through his work in this field.

Now is the time to thin the limbs in the orchard. Pruning of the right kind, done now, will increase the fruit crop the coming season. A tree that must support much more fruit than it can nourish and mature properly, is a losing proposition.

BETTER LIVE STOCK IN KANSAS

Ambrose D. Folker, Tells Visitors at Farm and Home Week at Manhattan, Kansas, How Farm Bureau Works for Better Live Stock on Our Farms

THERE are numerous organizations and forces—national, state, county and private—striving to carry out the slogan, "Better Live Stock on the Farm." Their efforts have been rewarded, and the work must be continued under the direction of every agency that can wield influence in the right direction.

The farm bureau is really one of the newer factors in the great educational campaign for live stock improvement. I am sure that a large per cent of the 1,100 county agricultural agents, who represent counties in the corn belt for the most part, have found, after analyzing and studying their problems and opportunities, that one of the most important and definite lines of work which should be made a part of their agricultural program, is live stock improvement.

It is one thing to talk inspiringly about more and better stock on the farm, and it is another thing to actually get more and better stock on our farms. Before we make any very sweeping changes in turning visions into realities, we stumble into the word "co-operation," which means much and could mean more. Co-operative live stock improvement will go hand in hand with other co-operative agricultural efforts, all of which are progressing just as fast as farmers are driven to them by necessity.

After obtaining the opinions of the other county agricultural agents of the state, and studying the work they have done, I have classed the activities of the farm bureau for live stock improvement into two groups—the general aid or community enterprises, and the specific aid or individual enterprises.

Under the first head come live stock shows; stock judging classes and contests; illustrated live stock lectures; testing associations; community breeding; issuing of market reports; teaching of market types, grades and requirements; using good live stock farms for demonstrations; service department or buying and selling exchange; organizing breeders' associations and keeping them going; organization of marketing and shipping associations; making community live stock surveys; securing co-operation in eradication and control of live stock diseases; and making the bureau a clearing house of information for all live stock organizations of the county.

The second head covers the individual help to farmers on their farms, and which the agent can and does give. This includes telling individual farmers of the merit of their stock, its comparative value, and the relative value of pure bred, grade and "scrub" stock; individual instruction in judging live stock; advice in buying feeds and compounding rations; giving plans and specifications for live stock barns, silos, sheds, and water supply systems; suggesting veterinary aid or simple remedies for live stock ailments; assisting in the vaccination of hogs; demonstration of clean-up methods; and the answering of inquiries or the securing of help on all live stock problems.

I shall dwell only on those lines of work with which I have had experience and which have given results. One of these is the live stock show. One of the simplest and most easily handled is the colt show. Kansas people like to compete in contests of all kinds, and the colt show is no exception. Only those who have studied the influence of a good horse show in a county can realize how effective it is in quickly putting better bred horses into a community, ridding the community of inferior, grade and "scrub" stallions, and stimulating community breeding and community pride.

Under the auspices of the farm bureau, co-operating with the business men and farmers, seven district live stock shows have been held in Jewell County the past year. Four of these shows were of horses and mules, the others were combined exhibits of cattle, hogs, and horses. Two hundred ninety-two worthy entries competed for \$495 in prize money, and some of Jewell County's best competed for the final prizes offered at the county colt show held October 28. The first prize in most of these shows was five or six dollars; awards were made to the fifth and sixth places, ribbons only being given for the last two places.

Live stock judging demonstrations and contests for men and boys and girls have been given considerable attention by the farm bureau in my county. This is a phase of school work too long neg-

lected as a part of the early training of thousands of our farm boys and girls, who now want to leave the farm. How can we make very rapid strides in improving our live stock until we know good live stock?

The eagerness with which 742 boys and girls of Jewell County studied the animals and listened to the judging demonstration while they were enrolled in the thirty-five contests held this past year, is conclusive proof to me that the average country boy is alive to the opportunities of farm life, and ready to help solve the problems if we will only give him a chance.

I feel that somewhere our educational system is at fault, when young men grow up in the average Kansas community without having an opportunity to study the fundamental principles of live stock judging in their home school or high school, and are compelled to go away to the agricultural college for their first inspiration and instruction along this line.

The best time to impress the possibil-

ity of their experiments, if valuable, brought before the people. Good systems of live stock feeding, breeding and management, with tabulated results, are practical and valuable because of local interest, and these are constantly being brought out by the farm bureaus. This kind of demonstration work is most effective in awakening interest in better live stock management.

This, then, is one of the great fields of the farm bureau—as a clearing house of information for everything that is good within the county, as well as for the experiment stations outside.

The supplying of market reports, and explanations of market terms, market types, grades and requirements, is an activity in which many a farm bureau has rendered service by means of charts, posted bulletins, correspondence, newspaper notes and personal visits. The majority of the farmers needs more marketing information, and the making of market reports and statistics interesting and valuable to them, is time well spent.

The organization, or assistance to

and instruction in stock judging will do a great deal toward getting a man's eyes opened to the breeding of something a little better. Giving instruction in the back lot—pointing out the desirable and undesirable points of a farmer's own live stock—is just as essential as giving instruction to college students in the judging pavilion at the agricultural college, using the best of types. The state needs both services.

The bureau can suggest feeds, rations, commercial concentrates best suited, give plans and specifications for barns, silos, sheds, water supplies. Every farm bureau can supply some veterinary aid. It can give worm remedies, formulas for live stock tonics, can have fake remedies analyzed and exposed, can give first aid treatment, etc.

Every agent has been fighting hog cholera, giving all the publicity and personal help possible along the line of prevention, sanitation, and vaccination. A special report on this phase of the work would show the farm bureaus are doing more to secure community co-operation, state and national aid, on the eradication of hog cholera, than are any other organizations.

Demonstrations in sanitation are doing a great deal to educate the masses of the people to the necessity for preventing disease rather than trying to cure it.

This, in a brief way, covers the main points of the subject, and time will not permit the many details that bring out forcefully the fact that this comparatively new agency for live stock improvement has already found a field of work and is securing lasting results.

Conservatism in Rural Credit.

Here is an expression of the views of the National Conference on Marketing and Farm Credits:

"This conference favors and recommends to Congress the appointment of a commission of five members to investigate the methods and results of land settlements in the West and other parts of this country where settlement of cut-over lands or drainage or swamp lands must be undertaken, as well as the causes and results of tenant farming in the entire country and prepare a report with recommendations as to the measures needed to remove the obstacles to acquiring farms and the modifications needed in the successful land settlement systems of other countries to insure their successful operation here.

"This conference goes on record as endorsing only such legislation for rural credits as will provide for the soundest valuation and the most careful maintenance of agricultural values, and only such legislation as is based upon self-help, careful auditing, a sound amortization plan, and the co-operative principle of organization for rural credit banks.

"Such a rural credits system should be created to aid: First, tenants who are in need of working capital and who are willing to form approved co-operative organizations under which moderate credit may be safely extended; second, tenants who have reached the financial condition which makes the purchase of land a safe risk, but who require larger loans and longer time than they can secure under existing credit conditions; third, land owners who desire to add permanent improvements without impairment of working capital. We oppose any legislation which suggests the wholesale legislation of government funds or the loaning of government credit, in such a way as to encourage land speculation or land investment which the business experience of our people has shown to be hazardous.

"This conference therefore strongly endorses a practical plan for rural credits. It just as strongly protests against any plan that will end mainly in real estate speculations and increase in land values to the disadvantage of actual settlers. Any plan for aiding settlers by a better system of rural credit should be preceded by an effective plan for preventing an increase of land values that otherwise is certain to deprive the settler of the intended aid."

Get busy on that plan of fixing up the school yard. Does it need a hedge or a few trees and shrubs for comfort and appearance? Talk matters over with the teacher and the older children. Pleasant surroundings at home or school pay.



AGRICULTURAL agents have been most successful in getting boys of the farm interested in better live stock. In Montgomery County a three-days boys' hike was conducted last fall by County Agents Macy and Popenoe, and District Agent Elling. The cut shows the boys being given a lesson in beef cattle judging on the farm of J. H. Keith near Coffeyville. A number of farms were visited and the boys received many valuable lessons.

ities of good live stock upon the farmer is when he is between the ages of ten and twenty-one—not after he has been farming ten or fifteen years and realizes the opportunities he has wasted. This is one of the principal reasons why every agent in this state made a special effort to bring a large delegation of boys and girls to this Farm and Home Week.

These boys and girls need the knowledge right now. Be sure the education of your boy and girl is fitting him for the duties of life, and if those duties of life lie near the soil, so much the better.

This might properly be termed a demonstration age. People must be shown, and even then some of us do not always believe. The county agent can by the use of charts, lantern slides, and the help of state lecturers, bring before those who want to learn, the principles of live stock breeding, a study of breeds, breed types, and the principles of live stock management and feeding. A great deal of this kind of work has been a part of each farm bureau's activities, especially during the winter months.

The value of a cow testing association and the many possibilities for real live stock improvement along this line are so familiar to every man who is maintaining a dairy herd, that I shall simply say the county agent who can supervise and direct the workings of such an association is doing valuable service for live stock improvement. Many farm bureaus are behind this kind of work.

Did it ever occur to you that with 3,000 or more farmers of a county working on an average of 160 to 200 acres of land, there is a vast amount of experimental work going on that never reaches the bulletins or the press? Our state experiment stations complete their work by compiling and publishing the results, while that done on the farms is very largely uncompleted and lost.

In every county there are experimentalists—just good every-day farmers—who should be discovered, and the results

marketing organizations where they already exist, opens up a broad field for work. One of the marketing associations of my own county organized under the direction of the bureau has done over \$15,000 worth of business this year at a saving of some \$300 or \$400 to the farmers of one community.

I think every farm bureau in this state has maintained a service department or a buying and selling exchange. This requires a file of the breeders of pure-bred livestock, and blanks furnished to each member of the bureau gives each farmer an opportunity to list his surplus stock or make his wants known. Hardly a day goes by that some farmer does not ask where he can secure some class or breed of live stock. This is help in solving marketing problems for farmers, and there are possibilities for activity along this line.

This brings us to the individual help the bureau can render, and the locating of pure-bred stock of merit—something better than what they already have—is a service that means immediate improvement. Hundreds of farmers would really like to have a better class of live stock on their farms, but they don't know just where to get it, haven't the time to hunt it, don't know what they should pay for it, and wouldn't risk their own judgment if they did. The agent, if he knows, can start these men on the right road, and I am sure every agent could cite instances of such service rendered.

Many a breeder goes to the wall because he doesn't know the merits of his own stock. Generally he thinks it much better than it is. Perhaps it is purebred and in his eyes that covers a "multitude of sins." Being able to tell a man just what he has, means more dollars to him sooner or later if he is a thinking farmer.

Occasionally we find a man with better live stock than he realizes, and in that case his stock can be recommended and words of encouragement and praise given for his efforts. Individual help

PERMANENT BUILDINGS BEST

Make-Shifts Have Their Place but Even These Should be Located so as to Fit Into a Permanent Plan Later

"KANSAS has reached the time when the better class of houses should be built in the country. This, because the average capital invested on the farm is considerably more than that invested by the average man in the city."

These words were spoken by H. W. Avery in a conversation about his comfortable residence which is just being completed on his farm near Wakefield, Kan. Mr. Avery expects to live out his life on the farm, and several years ago began to plan for farm buildings that would not have to be repaired and renewed every few years.

The barns and silos were built first. These are of reinforced concrete construction. There was an abundance of good concrete material close at hand.

The house, a cut of which appears on this page, has just been finished. The main idea was that of building for permanence. It is of fire-proof construction. The foundation is concrete. The walls are of hollow tile, the first story being covered with brick, and the second story with cement stucco. It has a tile roof. The use of the hollow building tile permitted the introduction of a number of pleasing architectural effects. The first story walls are made of interlocking tile fourteen inches thick. The tile blocks used in the second story walls are 5x8x12. By laying them differently, panel effects have been produced. Realizing that the ordinary brick flue is sure to be a possible source of fire at some time, Mr. Avery lined his flues with hollow tile made for this purpose. The cost of this flue lining was comparatively small, and it makes the chimneys absolutely fire-proof. The floors of this house are also of reinforced concrete. With this complete fire-proof construction the insurance rates are lower and there will be practically no expense for repairs.

In planning this house, Mr. and Mrs. Avery disregarded the location of the road, putting the rear front to the south—where they wanted it. There are three large windows in the dining room and also in the living room, and every bedroom, but one, has a south window or opens on a sleeping porch having openings to the south. Mr. Avery said they made this departure from the conventional because they wanted a south view and exposure, and considered the location of the road as of minor importance in comparison with having the rooms receive the sunlight and air from the south.

There is no extravagance in the finish of the house. It is partly oak and partly pine, with some birch doors. It is fully equipped with running water, and has bath rooms and laundry with sewer connection, and is heated with a hot water heating plant. The source of water supply is a tank on a nearby hill some forty or fifty feet in height. This supply tank was put in twenty-five years ago by Mr. Avery's father, and has been in use ever since in supplying water to the original house and the other buildings of the farm.

The original house was built well back from the road with the thought that when the permanent house was built it could be properly located. It is most unusual for people to look into the future in locating buildings, as was done in this instance by Mr. Avery's father and mother. This vision of the future which they had is well worthy of special comment. Twenty-seven years ago Mr. Avery's father and mother drove the stakes locating the house of the future. The spot selected is only a few feet from where the new house stands. An 18-inch tile sewer was laid at that time to handle some overflow water, and it was placed conveniently for the old house and with the new location in mind. It has been handling this storm water all these years as well as the drainage from the original house, and now the new

house is connected with it. The water from the rainfall passing through this tile keeps it clean. It passes the barn and then to lower ground and the discharge finally reaches the river.

An inexpensive private electric light plant will furnish light for this house. His reason for not putting in a more expensive plant is that he is of the opinion that at some time in the near future it will be possible to connect with a high tension power line. This source of electricity is much more satisfactory and more economical than the maintenance of the private plant.

In planning and locating this house, due consideration was given to the lay of the ground and the general surroundings. Mr. Avery's father and mother had planted trees with this building site in mind. These trees have been cared for and preserved, and now that the house is built the grounds and surroundings will be further beautified.

We have too few instances in this country of the children carrying out the plans made years ago by their parents. An ambition to realize the worthy dreams of our sires is commendable. But this is not enough. We should in turn thoughtfully plan for those who are to follow. If more farmers would consider the farm as a permanent abiding place and would plan for the future, as did these pioneers, we would hear far less about the rural life problem.

Bermuda Sod for Other Crops.

Last spring I plowed up an old Bermuda grass pasture at odd times when

it was so wet other lands could not be plowed. A part of this I planted to feterita. The stand was not good and the yield was not satisfactory. But here the Bermuda made the most luxurious growth ever produced on this farm. Later, when the field was pastured, the cattle ate the feterita—stalks and all. It was a clean sweep, as though it had been cut and hauled away.

Another part I sowed to feterita. While it was not as high as that planted, the yield of grain and of forage—which was a fine quality—was satisfactory. The cattle ate it—grain and stalks and all. Here the Bermuda did not do as well, as the feterita was so thick the Bermuda was shaded.

In another place darso was planted. This is a new grain sorghum, possibly a sport from kafir. It is a dwarf, yielding only a moderate amount of forage, but this of excellent quality. The grain yield was excellent and the grain of such good quality that we headed it for horse feed. In grazing, the cattle ate the forage clean. This grain is plump, does not shatter, and is highly relished by stock. Had twelve acres of darso on another part of the farm, and have saved all of it for horse feed. It is the highest quality forage grown on the farm. For sowing broadcast for hay, it would make excellent feed. I don't think there is any grain sorghum equal to the black-hulled kafir. Darso comes next. In my estimation, it is beyond comparison with feterita—both for grain and forage, and it does not sucker or fall.

I also double-rowed Sumac cane on a

part of the land. For grain and forage and the growth of Bermuda, it was perfectly satisfactory. The cattle ate this, too, without waste. In another spot I planted Sumac cane with a two-horse corn planter, using about a peck of seed per acre. This I cultivated as best I could, which helped the Bermuda as much as it helped the cane. These two crops raced for growth. In September we cut the cane for silage. It yielded twelve tons per acre. The Bermuda was a perfect mat. It would have made hay, but the ground was too rough to cut it. This part of the field was the most satisfactory of all.

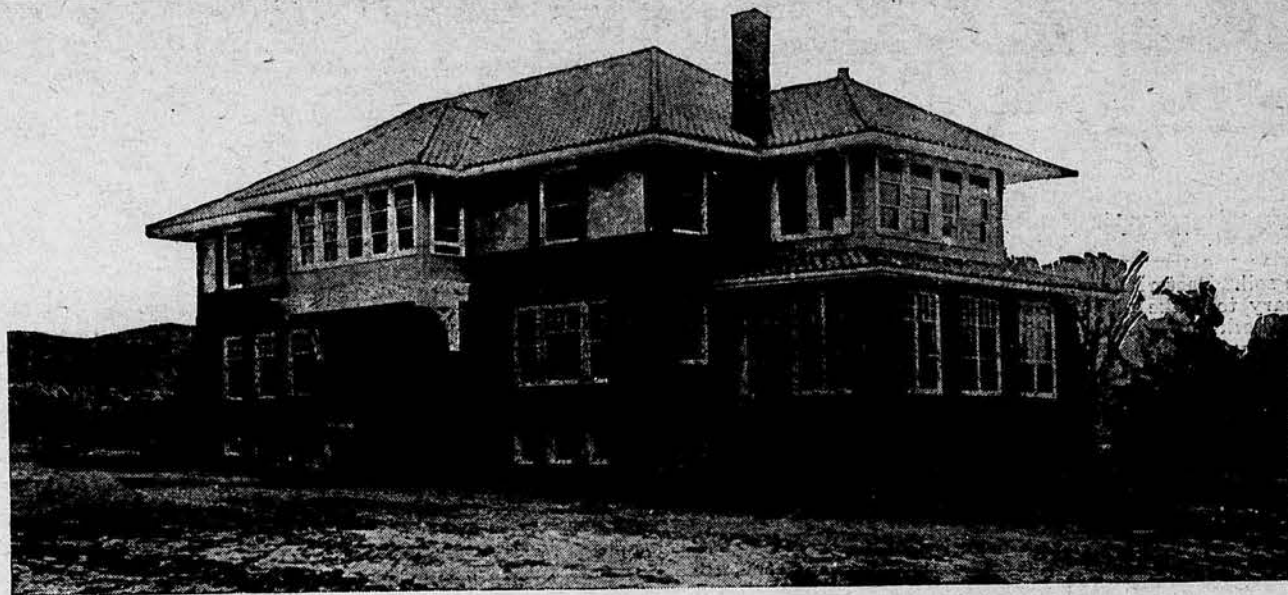
Seeded Ribbon cane was planted on another part. It grew slowly until about three feet high, when it grew in every direction—up, sideways, and crossed over upon the other row. We could cut it only by hand, and for this work we had neither the time nor the inclination. We did not weigh it, but it must have weighed twenty tons per acre.

In this one field we had a mixture—Bermuda, feterita, darso and cane, and a big pond—all enclosed by a four-wire fence. So we bought 130 head of long yearling steers and turned them in and let them do the harvesting. It was cheap feed, and from it the gains were good. The cattle wasted much, but it is upon the ground where it grew. With the droppings from the cattle and the waste from the feed, that old Bermuda pasture is well manured and at little expense. This field is the poorest land upon the farm—alkali, stone, and general soil poverty—but the Bermuda is so great a soil-builder that it is making it as good as the rest. This season we will graze it, and expect plenty of good grass—which is so badly needed in the West. Next season we will plow it again, grow another big crop of feed, graze another bunch of cattle to make more manure for growing bigger crops of Bermuda and cane. This is safe farming, and so easy. —"BERMUDA" MITCHELL, Chandler, Okla.

"Luxury for Hogs."

A reader asks if it is necessary to have glass windows in farrowing pens for brood sows.

The purpose of the window is to let in sunlight. This has a disinfecting action, and likewise furnishes considerable heat when the sun is shining. Glass is a good conductor of heat, however, and during the night a house having too many windows might get too cold unless some means is taken to prevent the escape of heat. Little pigs should be given all the sunlight possible. Many hog growers who use the small individual farrowing houses do not have them provided with a means for getting sunlight back into the bed. A. J. Lovejoy, of Roscoe, Ill., a hog man of forty years' experience and well known all over the United States, in an address before the State Board of Agriculture, told of what he called a "luxury for hogs." This consists of a room or pen adjoining the farrowing house, having a glass top. Even in the coldest weather when the sun shines, this pen will be warm, and the sow and little pigs will fairly revel in the sunshine. It should be provided with clean, dry bedding, as should also the sleeping quarters. The only precaution to observe in using this is that the sow and litter must be put back into the house at nightfall.



THE COUNTRY RESIDENCE OF H. W. AVERY AND FAMILY, NEAR WAKEFIELD, KANSAS.—IT IS HARD TO IMAGINE A MORE COMFORTABLE HOUSE FOR EITHER TOWN OR COUNTRY



THIS farm house, belonging to W. H. Wylie, Norton County, has been built ten years. The lawn in front is 50x120 feet, and is surrounded by a concrete curb. A concrete walk leads from the house to the road. This house is heated with a furnace. It has hot and cold water, sink in the kitchen, and a fully equipped bath room on the second floor. The water supply is from a cement tank, the top of which is twenty-five feet above grade. This house will be equipped with an electric lighting plant in the next sixty days.

Storm doors take the place of screens during the winter.

The lower story has six rooms and is finished in oak, including the front stairs and grill. The second story of five rooms, and the attic, are finished in hard pine.

There are a number of such farm houses as this in the western part of the state, every one of which is a monument to the agricultural possibilities of this newer section of our state.

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

SUBSCRIBER D. A. B., Arkansas, asks if crushed limestone is as good to sweeten sour land as is burnt lime. He also asks how much it requires for an acre.

Lime is applied to soil to neutralize soil acidity. It is not a fertilizer, but through this action in destroying the acid present, it makes it possible for plants to use fertility which is already in the soil. Bacterial agencies which are necessary to make plant food available, cannot work in the presence of acid.

Ordinary crushed limestone is much more commonly used than is burnt lime. It must be ground fine. The ordinary application is from two to four tons to the acre. This amount will give ample reserve to correct the acidity in the soil for a number of years. This form of lime does not act as quickly as does the burnt lime. If burnt lime is used, not more than a ton to the acre should be spread. Sometimes air-slaked lime is used. This does not have the burning or corrosive action of the freshly burned lime, and two or three tons to the acre can be applied.

Manure From Stock Yards.

R. L., Linn County, asks if he can ship stock yards manure to his farm without danger from disease.

An immense amount of manure goes to waste at the central stock yards, and the railroads have made low rates on manure in order to encourage shipping it out and spreading it on the farms. The stock yards may be considered as always infected with hog cholera, but a great deal of manure has been shipped out and spread without causing any outbreaks of disease. We recently made special inquiry concerning this point in Leavenworth County. The county agent of that county, who is thoroughly familiar with the conditions, has not been able to locate a single outbreak of infectious disease that could be traced to shipments of stock yards manure, and a great deal of it has been used in that locality. The agent has always advocated that the greatest of care should be used in handling this manure, keeping all wagons and manure spreaders out of the barnyard where stock is being handled. They should also be thoroughly disinfected after the manure is unloaded, before they are taken back to the yards where stock is kept.

If stock cars are used for hauling this manure, they should be disinfected before they are again used for hauling live stock.

Brome Grass in Northwest Kansas.

In a recent issue of KANSAS FARMER we referred to the growing of bromus inermis in the northern and northwestern parts of the state. At that time we stated that some farmers in the northwestern counties had been successfully growing this grass. This statement was based on some reports that came to us while attending a farmers' institute meeting several years ago.

We have just received a letter from H. T. Nielsen, district agricultural agent for that section, in which he states that he has been over the district quite thoroughly and has not been able to find any of this grass growing. It would appear from this report that the farmers who claimed to be growing the grass successfully a few years ago, were over-enthusiastic and that the grass finally turned out to be a failure. Mr. Nielsen states he believes it requires more moisture than is normally received in that part of the state.

This grass has not been found successful at the Hays Experiment Station, and the probabilities are that it can hardly be advised for these western counties unless it is in some specially favorable locality on a creek bottom, where there is some underflow water near the surface.

Conducting A. R. O. Tests.

M. S., Nemaha County, asks how he should proceed to get some Advanced Registry work done in his dairy herd. He also wants to know the meaning of the letters A. R. O.

These letters stand for Advanced Registry Official. They are simply official production records made under the supervision of the record associations for the various breeds. A farmer who wishes to attempt an Advanced Registry record should notify the record association for his breed. In Kansas the supervision of these tests is placed in the hands of the Manhattan Experiment Station. A man from the station will be sent to weigh



RESIDENCE AND BARN BELONGING TO HARRY BURGER, NEMAHA COUNTY.—BOTH ARE EQUIPPED WITH MODERN IMPROVEMENTS

and test the milk for butter fat two days of each month, when a year's record is being made. The farmer must weigh the milk daily during the test, and his weights will be checked by the weights of the official supervisor. Where a week's record is being made, the supervisor remains the whole week, weighing and testing the milk from each milking.

Too Much Meat in East.

A reader of KANSAS FARMER recently sent us a clipping from the Kansas City Journal, the item being a New York City date line. It called attention to the large quantities of meat and other foodstuffs in the cold storage warehouses of New York and New Jersey. The thing that puzzled our correspondent was the fact that his attention had just been directed to the sanctioning of horse flesh as food in New York City, and our editorial comment on this action. He does not see how there can be a meat scarcity such as would require the consumption of horse flesh, when storage warehouses are congested with these food products.

It was our opinion that this sanctioning of the use of horse flesh as food, had for its purpose the supplying of cheaper meat than that coming from animals commonly used for such purposes. In spite of the fact that such large quantities of meat are comparatively high and many people do not eat as much meat as they would if it could be bought at a lower price.

Packing houses never miss an opportunity to hammer down prices when buying the stock they need to fill their coolers. They have had an excellent opportunity this fall to beat down the price paid for hogs. Owing to the fact that so much corn in such hog states as Iowa and Nebraska did not mature sufficiently, there was a great rushing of hogs to market. This rapid liquidation of the hog crop gave them their chance, and as a result hog prices went down. A study of the markets of the past week or so, indicates that things are getting back to normal. Top hogs sold as high as \$7.40 a hundred in Kansas City last week.

Our correspondent states he has been raising hogs for market and expects to continue doing so, even though the business does not look especially bright in

view of the prices they are now bringing as compared with the market price for corn. He is most assuredly right in staying with the business. No stock grower ever has any success unless he stays with the business. If he sell out when prices do not seem to be satisfactory he will almost invariably be trying to get back in again when prices are at a high level. A great many hog men will undoubtedly plan to cut down their hog production for the next year or so as a result of the low prices of the past fall. Those who stay in the business and plan to grow just as many hogs next year as they did this year, will be in a position to reap the benefits of the upward trend which is sure to come. A study of market records shows that prices tend to vary up and down in fairly regular cycles or periods.

Winter Pruning.

B. L., Lyon County, asks for advice in renovating an old apple orchard. He says the orchard has been badly neglected and has borne little fruit in recent years.

There are many of these old neglected orchards. Remarkable improvements can be made by proper pruning. Last fall we were in some of the demonstration orchards handled under the direction of George O. Greene of the extension division of the agricultural college, and were much impressed by what had been accomplished by proper spraying and pruning. The neglected tree grows so dense a top that it is impossible for fruit to develop. The air and sunlight are shut out, and various plant diseases are encouraged. Illinois canker will be found in many of these old orchards. This will eventually destroy the tree unless something is done to check it.

The heavy pruning should be done during the winter months at any time when the weather is warm enough so the work can be done with comfort. The common practice of the inexperienced man is to cut off all the branches he can easily reach from the ground. The proper place to begin is at the top, cutting out such branches as shade the center of the tree too much. It is not wise to remove too much of the wood in one season. If the balance between the top and roots is too greatly disturbed, there will be a big

growth of water sprouts the following season. As a rule these old neglected orchards have very little fruit-bearing wood along the main branches. Apples are borne on short, crooked or irregular spurs that are two or more years old. In thinning out the tops so the sunlight and air are admitted, new fruit-bearing wood will be produced. All dead and diseased wood must, of course, be removed. In removing these heavy limbs, every effort possible must be made to avoid breaking off or injuring what fruit spurs there must be. All cuts should be made close to the limb from which the branch is taken. The wounds should be covered with a paint made of white lead and raw linseed oil mixed fairly thick.

We would advise those who have old orchards needing renovation to write to the experiment station at Manhattan for a copy of circular No. 49, entitled, "Pruning." In many parts of the state pruning demonstrations are made, and if opportunity offers, a visit should be made to one of the orchards where this work is being done. Seeing an experienced man prune a tree properly, is a much quicker way of learning than to study it in a bulletin.

Ashes for Hogs.

W. S., Johnson County, asks if coal ashes are good for hogs.

If the coal has been thoroughly burned so that nothing but ashes remain, they will be of little value. Coal slack or ashes containing some partially burned coal, are of value, since the coal seems to have a sweetening effect on the stomach contents. Hogs seem to crave charcoal or slack coal, and this is an indication that it is of some value in the diet. Quite often rations are deficient in mineral matter, and the appetite for material of this kind is an indication that they are in need of more mineral matter. Wood ashes are always valuable, because they supply a considerable amount of mineral.

Corn in Western Kansas.

A Western Kansas reader takes exception to an article in which we discouraged the general planting of corn in the western part of the state. He calls attention to the fact that in Missouri and in Eastern Kansas in the early days there were many corn failures, but that did not prevent people from continuing their efforts to grow corn until they succeeded. As evidence of what can be done in Western Kansas, he gives several specific instances of corn-growing successes. One man has raised an average of twenty bushels to the acre for the last six years. Another is spoken of as having raised several fair crops of corn the past ten years. Attention is called to the fact that around Dodge City, even though the rainfall has not increased, crops are three or four times as good as they were a few years ago.

While it may be true that the pioneer settlers in Eastern Kansas and Missouri did not succeed at first in growing corn, crop statistics show that corn yields in Eastern Kansas have steadily declined for the past thirty or forty years. These are facts that cannot be denied.

The few examples of corn-growing successes in Western Kansas have little effect on the corn-growing statistics of the various counties taken as a whole. Here again, we have figures that show that the average corn production is very small. Considerable progress has been made by some in learning how to make better use of soil moisture and in adapting varieties to the conditions, but we still maintain that the sorghums are more generally adapted to Western Kansas conditions than is corn. These crops, year in and year out, will more nearly furnish an assured feed supply than will corn. No farmer should "put all his eggs in one basket," whether he be farming in Eastern Kansas or in Western Kansas. A close study of the successes in the western part of the state show that they have usually come to those who have diversified in their cropping methods.

The farmer generally breeds on his own farm, those insects which later devastate his crops. By cleaning up fence rows, hedge rows and burning refuse we can rid ourselves of many of these pests. Thousands of grasshoppers breed in a narrow uncultivated fence row.

Crops grown at a potential profit may, by being fed to a poor grade of live stock, be turned into an actual loss.



INTERIOR VIEW OF BURGER COW BARN.—COMFORT AND CLEANLINESS INSURED BY SUITABLE STALL EQUIPMENT

Good Barn Paying Investment

BUILDING the barn described below has been a profitable investment to H. D. Burger of Nemaha County. It has not only paid financially, but has made a pleasure of work that had formerly been the worst kind of drudgery. This splendid equipment would not have paid, however, if the right kind of dairy knowledge had not been used. The first important lesson learned on this farm was that most of the cows being milked were unprofitable. According to Mr. Burger's statement they never could have built such a barn if they had kept on milking as they had been for some time before they got their eyes open. The longer they milked, the poorer they got. With the use of better cows came the necessity for better equipment and the cows helped to make such equipment possible.

Mr. Burger considers the saving of the manure alone to be one of the most important factors in the results secured. He estimates that each cow and horse kept produces \$30 worth of fertility each year and he now is saving a maximum amount of this fertilizing value. Mr. Burger says, "We use lots of bedding, both for the comfort of the animals and to take up liquid manure. The manure from the horse barn is mixed with that accumulated in parts of the building where cattle run loose. It is thus kept from heating and we no longer have the burning manure piles under the windows, leaching whenever a rain falls until we could see the gold dollars running out across the road and into the creek. We figure that 12 per cent or more is made on the total investment from the extra amount of fertility saved over the old way. And then it is hard to estimate the value of having the hay, grain and stock all so conveniently housed."

The barn proper is L-shaped, the wing 36 x 60 extending to the south being used for the cows. The east wing, 36 x 30, is used as a horse barn, while the square 36 x 36 between these two wings is used partly for box stalls, but principally as a runway or shelter for loose cattle. A tank of water is located in this section, which is supplied from a pressure tank in the basement of the residence, thus insuring plenty of water at a proper temperature. Horses and cattle are all watered from this tank and do not have to be taken out in the mud and snow in bad weather.

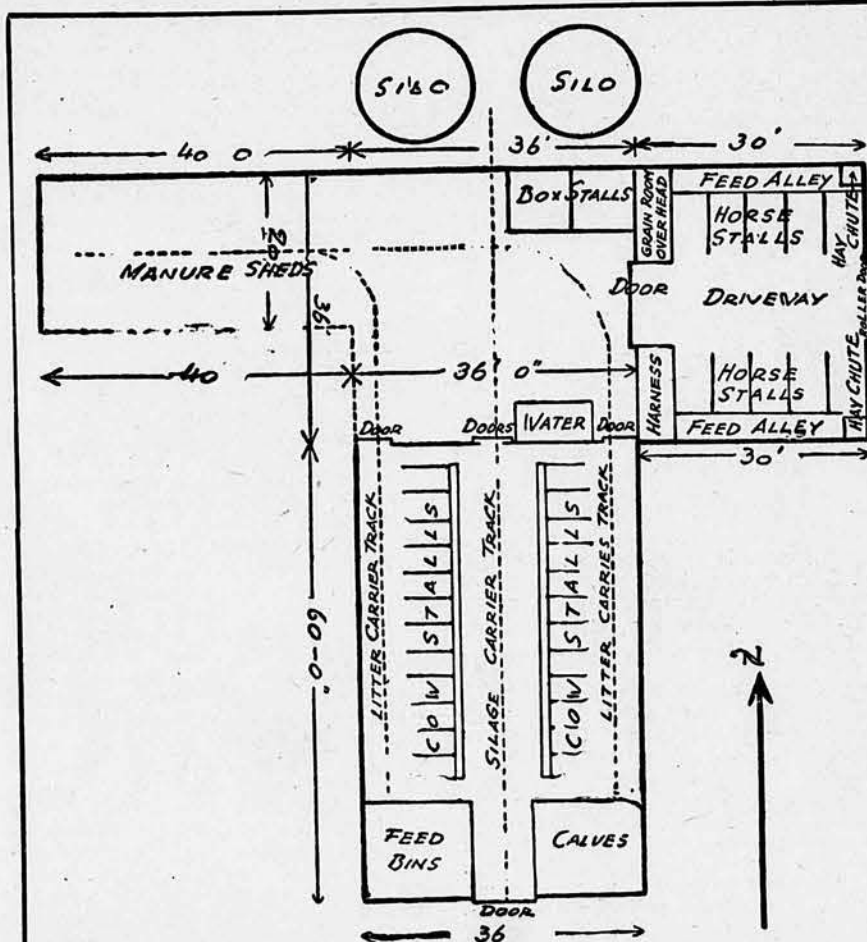
Extending to the northwest, as will be noted in the plan, is a manure shed 20 x 40. This shed is an important part of the plan. It is kept well bedded all the time and the cattle tramping over it keep it well packed, and there is the least possible loss of fertilizing value. When it is not desirable to haul manure

direct to the field from the cow barn, it is carried by means of a manure carrier and dumped in this shed. Large doors are placed in the horse barn so that a wagon or manure spreader may be driven through if necessary. A spreader may also be driven on through the runway for loose cattle and into the manure shed.

With the exception of the manure shed the barn is two stories high, the studding being eighteen feet in length. The height of the ceiling in the stable is nine feet, thus making the hay loft nine feet to where the roof begins. The roof is of the gambrel type and the barn has a total hay capacity of over 200 tons. The truss type of construction is used, the rafters all being of the same cut and length. The pitch of the lower section is three-quarters, while the upper is one-quarter.

The stables are abundantly lighted by six-light single-sash windows, hinged at the bottom and tilting inward at the top. Shields at the sides of the windows on the inside protect from side drafts. When the windows are open the air is deflected toward the ceiling and kept from striking the animals directly. The barn also has a first-class King ventilating system, which keeps the air pure and sweet, even when all doors and windows are tightly closed. The stable is fitted throughout with steel equipment, including stalls, litter carrier, feed carrier, hay carrier and necessary track. It is sided with drop siding and is well finished throughout.

The total cost of this barn without the equipment was \$2,900. The equipment cost \$600, thus making the total cost \$3,500. This looks like a big investment for a farm barn, but the facts are that with this vast amount of hay storage capacity, its live stock capacity, manure storage and the convenience of caring for the animals, it is a very economical investment. The annual cost might be worked out approximately as follows: Interest on the investment at 6 per cent, \$210; insurance, \$10; painting and reroofing as needed, \$75; incidental repairs, \$10, or total \$305 for the year. A sinking fund of \$25 per year, drawing 6 per cent annually, will build such a barn as this every thirty-seven years, which is below the life of such a barn when properly cared for. Hence \$330 is the annual cost for the storing of 200 tons of hay, properly sheltering fifty head of cattle as well as all the work horses of the farm. In addition, a place to store manure so as to preserve its maximum fertility is provided and the arrangement is so convenient that the work of caring for all this stock can be done with half the labor required on many farms.



A BARN SUCH AS THIS GREATLY LESSENS LABOR AND INCREASES PROFITS
—MR. BURGER CONSIDERS SAVING OF MANURE AN IMPORTANT FEATURE

One Register

Patented

Heats Your Entire House

(Copyright 1915 by the Monitor Stove & Range Co.)

Why pay for furnace pipes you don't need? The Caloric Pipeless Furnace makes pipes and flues unnecessary. It has just one register. Heat circulates through the entire house, giving upstairs, downstairs and halls the same degree of warmth. There is no danger of catching cold by going through rooms of varying temperature.

You save money on installation because all you have to do is put Caloric Pipeless Furnace in your cellar and cut a hole in the floor immediately above for the only register that is required. You do not have to cut a lot of holes in your house and spend time and money putting in pipes. Even if your house is already built you will find it easy to put in the

PIPELESS
CALORIC
FURNACE

The Caloric Pipeless Furnace is guaranteed to save 35% of your fuel. This is because there are no pipes to absorb heat, and our special double ribbed firepot has 600 square inches greater heat radiation. Our single register furnace increases the heating capacity 84%. Our guarantee of 35% fuel saving is very conservative. You can pay for the Caloric Pipeless Furnace out of the money you save on fuel.

Burns Coal, Coke or Wood Economically

This is a hot air furnace and you do not have to bother keeping water in a boiler. Our firepot is guaranteed for five years. The Caloric Pipeless Furnace produces a healthful heat, because the warmed air is moist and every room and hall in the house is heated to equal temperature. It is the one furnace that will not spoil produce in your basement. It lessens fire danger, which is an important consideration, especially where there are children.

Our Strong Guarantee

You get this furnace at our risk. We guarantee its results. We freely offer to let you put the Caloric Pipeless Furnace in your house and give it a fair test.

If quality and material are not up to our guarantee—if the Caloric Pipeless Furnace is not as represented, we will make it right at any time within a year.

FREE BOOK tells all about the Caloric Pipeless Furnace. Shows why you can heat your entire house comfortably with no pipes and only one register. The Caloric dealer in your town will gladly demonstrate this furnace. If there is no dealer, write for this free book and get details of our protective guarantee.

THE MONITOR STOVE & RANGE CO., 294 East St., CINCINNATI, OHIO



Six Reasons for Avery Tractor Success

STUDY over these special features in the design and construction of Avery Tractors and you will know why so many men are buying Avery Outfits. There are more acres plowed by Avery Tractors and Plows than by any other make. What they are doing for others they will do for you. These are some of the reasons why it will pay you best to get an Avery:

First—Avery Tractors have a special sliding frame which makes possible the elimination of the intermediate gear, shaft and boxings. An Avery Tractor has the least gears, the least shafting and the least bearings of any two-speed, double-drive tractor built—which means more power and longer life.

Second—Avery Tractors have two rear drive wheels and two speeds—a big advantage over single-drive and one-speed tractors.

Third—Avery Tractors have slow-speed, heavy duty opposed motors—not high-speed, light automobile motors.

Fourth—Avery crankshafts are one-half the diameter of the cylinder or more. There has never been a broken Avery crankshaft.

Fifth—Avery motors have renewable inner cylinder walls. These parts can be replaced if needed without having to buy complete new cylinders.

Sixth—Avery Tractors are entirely free from

all pumps and fans. All such easily broken and troublesome parts are done away with in the construction of an Avery Tractor.

A Complete Outfit Built by One Company

—the plow as well as the tractor. All built and backed by a company having a large factory and many branch houses, which insure prompt and permanent service. Avery "Self-Lift" Plows are built in all sizes from 3 to 10 bottom. We also build the "Yellow-Fellow" Grain Saver Separator in sizes to fit each size tractor.

Avery Tractor Prices—3-Plow Tractor, \$780 cash; 4-plow, \$1120 cash; 6-plow, \$1680; 8-plow, \$2145; 10-plow, \$2475. We also build a special smaller size tractor for \$235.

Write for new 1916 Avery catalog and investigate farming, threshing, road-building, etc., with an Avery Tractor.

AVERY COMPANY, 1420 Iowa St., Peoria, Ill.

Ask for address of nearest Branch House or Jobber

AVERY
One Man Outfits 6 Sizes Fit Any Size Farm

"I Had to Stop the Leaks—

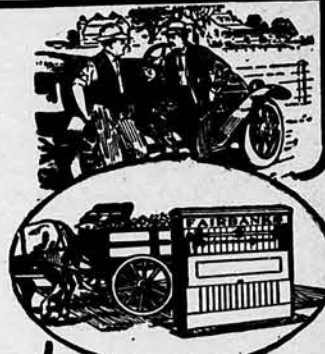
because my profits were getting away in many little losses. Close checking of my produce required the installation of a

Fairbanks Scale

Every careful farmer should have one of these scales to help bring profits up to where they should be. They are simple, long lived scales that tell the truth about weights.

Fairbanks, Morse & Co.

KANSAS CITY OMAHA
(898-390D)



MENTION KANSAS FARMER WHEN YOU WRITE.

Cut Your Footwear Expense

Elephant Head Rubber Boots outlast the ordinary kind. You cut down footwear expense, because you buy less often.

Every seam and wearing point is reinforced. Made in all lengths. Always look for the Elephant's Head. Sold by square dealers.

WOONSOCKET RUBBER CO., Woonsocket, R. I.



WOONSOCKET
ELEPHANT HEAD
RUBBER BOOTS

JOHN ALTER MAKES BIG MONEY AGAIN WAS OFFERED AND REFUSED \$10,500.00 FOR HIS LAST CROP FROM 20 ACRES OF SILVER MEDAL WINESAP

7 bushels per tree from just 1000 trees! Think of it! 7000 bushels—the crop of a single season (1915) from only 20 acres! Over \$500.00 per acre! This wonderful apple production record was made last season near Belle Plaine, Kansas, by Mr. John Alter, who in December decided to hold for the higher prices this fruit will bring because of its exceptional size and quality. The buds for propagating the trees which produced this big-money crop were originally cut from 3 parent trees, the fruit of which won the Silver Medal at St. Louis World's Fair.

Read Mr. Alter's Own Statement

"This 20 acres of Silver Medal Winesap is set to Moncrief Pedigreed trees. It's now in its 10th year and for 6 successive years has borne a full crop every year. Have always got \$1.50 a bushel or better for the fruit of this orchard. My latest figures show that in ten years my Pedigreed Winesap have produced over 24000 dollars worth of fruit—an average of at least \$24.00 per tree.

You Can Do As Well John Alter's orchard is not the only profitable orchard of Moncrief Pedigreed Trees. In all parts of the country every fruit-picking season now is producing positive proof that Moncrief Pedigreed Trees bear quicker, bear bigger, bear better, bear more regularly—are therefore the surest, safest and most profitable for the orchardist to set.

Order Quick

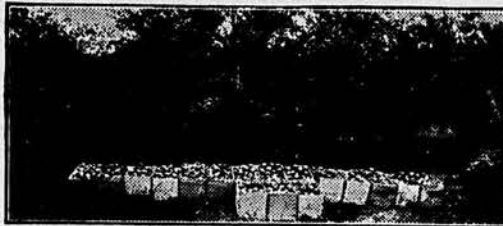
After nine years of testing, we offer this year, for the first time, a limited number of one year trees propagated direct from the best trees in the Alter Orchard. If you want apple trees bearing one to three years earlier than common winesap—fruit as big as Stayman, with the fine dark red of Winesap—abundant yields, regular crops, an unexcelled keeper, one of the few great shippers, an apple that will make you more money and make it quicker than any apple you can grow—then plant Silver Medal Winesap.

THE MONCRIEF ORCHARD BOOK

TELLS HOW IT WAS DONE—

Tells all about the Silver Medal Winesap, how it was propagated, grown and developed into big profits in less than 6 years from planting. Paves the way to surer, quicker profits with all kinds of fruit. Tells all about the Moncrief way of producing pedigreed trees that bear earlier, bear heavier, bear better fruit and do it more regularly. Illustrates and describes best varieties of fruits, berries, etc. Lowest prices direct to planter. Free on request.

WINFIELD NURSERIES
101 Court St., WINFIELD, KAN.



A 17 Bushel Crop From One Tree—10 Year Old Silver Medal Winesap

\$20.00 FREIGHT PREPAID



FURNACE is made of range steel, round bottom, reinforced with angle iron and has angle iron legs. Has heavy door with draft regulator. Burns anything: coals, chunks, fence posts. Equipped with grates for burning coal. Six feet smoke stack furnished.

SMOKE YOUR OWN MEAT in a COLUMBIAN METAL SMOKE HOUSE. Give it that natural flavor which is lost when liquid smoke is employed. Why should you pay packing houses their profit and freight two ways on your meat. You can save enough on these two items alone to pay for a Columbian. It is made of best grade No. 24 gauge galvanized metal. Sectional easy to erect. Has revolving meat rack, making it easy to fill or empty.

SEND IN YOUR ORDER TODAY. Simply give us the name of your bank and we will make shipment draft attached to bill of lading. Think of it—A Smoke House for \$25.00 or a Cooker and Scalding Vat for \$20.00 delivered at your station. Pay for them when you get them. Also sold by most dealers. Order today.

COLUMBIAN STEEL TANK COMPANY 1623 West 12th St., Kansas City, Mo.
Manufacturers of the "Old Medal" line of Tanks for the World.
Write for Circular giving delivered prices on hog raising equipment.

Most Profitable Farm Tool
Cooked feed fattens cattle, hogs, and poultry in less time and at a saving of 50 per cent over raw feed. It is more palatable, wholesome and easily digested, every particle going into meat making. Free of disease germs.

THE COLUMBIAN COMBINATION FEED COOKER AND SCALDING VAT is used for cooking grain and vegetables for stock and poultry, scalding hogs, rendering lard, making soap, heating water, outfitting and a hundred other uses.

VAT is separate from furnace and is made of best grade No. 20 gauge galvanized metal, reinforced with heavy angle iron. Capacity 150 gallons—six feet long, 20 inches wide at bottom, 30 at top, 18 inches deep. Has extra perforated false bottom preventing feed sticking to bottom.

FURNACE is made of range steel, round bottom, reinforced with angle iron and has angle iron legs. Has heavy door with draft regulator. Burns anything: coals, chunks, fence posts. Equipped with grates for burning coal. Six feet smoke stack furnished.

SMOKE YOUR OWN MEAT in a COLUMBIAN METAL SMOKE HOUSE. Give it that natural flavor which is lost when liquid smoke is employed. Why should you pay packing houses their profit and freight two ways on your meat. You can save enough on these two items alone to pay for a Columbian. It is made of best grade No. 24 gauge galvanized metal. Sectional easy to erect. Has revolving meat rack, making it easy to fill or empty.

SEND IN YOUR ORDER TODAY. Simply give us the name of your bank and we will make shipment draft attached to bill of lading. Think of it—A Smoke House for \$25.00 or a Cooker and Scalding Vat for \$20.00 delivered at your station. Pay for them when you get them. Also sold by most dealers. Order today.

COLUMBIAN STEEL TANK COMPANY 1623 West 12th St., Kansas City, Mo.
Manufacturers of the "Old Medal" line of Tanks for the World.
Write for Circular giving delivered prices on hog raising equipment.

3 MACHINES IN 1

Do you want a machine that will pulverize, pack and mulch the ground in one operation, putting it in best possible condition for seedling or planting, and to retain the moisture? Do you want a machine that will break the crust on winter wheat or other grain in the spring—close the cracks and form the hardest crust into a granular mulch to preserve the moisture, without hurting the grain? Do you want a machine that will double your profits on crops?

Western Pulverizer, Packer and Mulcher Will Do It

Made in 8 sizes, 1 and 3 sections. Price \$20 and up. Don't buy a roller or packer before getting our free catalog, which contains valuable information, describes the machine and its principle, quotes price direct to you. Send for it today.

WESTERN LAND ROLLER CO., Hastings, Nebr.

Drawer D



Dairying and Dry Farming

It is not my purpose to discuss dairy farming as a business, but rather to discuss the subject in its relation and as a sideline to dry farming. More live stock should be handled in connection with dry farming, and particularly more dairy cows. The man with capital usually follows other lines of live stock industry than dairying, but the small farmer with an eighty or 160-acre farm without capital cannot handle a large grazing or breeding proposition. So it is to the small farmer with a limited capital that I want to address my remarks.

A few cows should be kept on every farm, for four principal reasons:

To diversify the system of farming, make use of manure and therefore place it on a more permanent basis. To furnish employment the entire year. To utilize the rough feed that is grown, and may be grown to advantage. To insure a constant income and furnish butter and cream for family use.

It has been the history of the farmers in the sub-humid region that the small farmer who has settled on these lands and has kept a few cows and hens and sold butter, cream and eggs, has been more successful financially, has built up a better community and in general has been more prosperous and happy than the man who has followed a one-side system, such as wheat farming. Furthermore, this has been true over the entire world. The countries that are commonly known as live stock countries, as England, France, Denmark, Holland and Germany, are far more prosperous and represent a higher type of civilization than other countries that depend on crops other than live stock, such as Russia, Spain, etc. A few cows kept on the farm furnish constant employment the year around. By having the cows freshen in the winter one is employed at a time when otherwise he would not have any remunerative employment. It is the man who is always busy that gets ahead.

In the dry land belt there are many crops that can be grown successfully and these crops make good feed for cattle. There should be more sorghums and less wheat grown. The farmer with a few cows has a constant income from the sale of butter or cream. This income should be sufficient to pay the household expenses and the taxes and besides there should be plenty of dairy products for the home and skim milk for the chickens and hogs. There is a general appreciation of the income from a few cows during a period of proper wheat years. In Kansas we notice after a number of poor wheat years that the dry land farmers and business men in those localities are anxious to buy cows and hold dairy institutes, but after a year or so of good wheat crops this condition does not exist. The farmer who milks cows during good years as well as poor years is the one who is sure to succeed. At our branch experiment station in Kansas we now have demonstrations in progress that will give us some reliable information on the advantages of keeping cows. At our Dodge City station we have six ordinary native cows that made an average production of 200 pounds of butter fat last year. This butter fat sold at an average of 25 cents per pound, making a return of about \$50 per cow. There was expended about \$8 per cow for concentrated grain feed, the rest of the ration being produced on the farm. Besides the sale of cream we have the calf, skim milk and manure. At the Hays station we now have a herd of twenty-six cows. These cows made an average production of 293.7 pounds of butter fat per year and thereby converted a great amount of cheap feed into a valuable cash product.

The silo furnishes a means of storing feed and preserving it in its choicest form. The silo is within the reach of every farmer and can be obtained with little expense. The pit silo is the most feasible and practical to build in the dry-farming belt wherever conditions are such as to make it possible. The only requirement is that of location. The pit silo must be built in a dry soil. It is very inexpensive, the labor, which is usually abundant, is the principal item. The pit silo is built similar to the round cistern. The pit should be built at least twice as deep as it is wide. The sides of the pit are coated with at least two coats of cement plaster and it is ready to use. Silos above ground may be built out of a variety of materials, such as wood, cement, metal, hollow tile, etc.

The best crops for silage in the sub-humid regions are the sorghums, because of their adaptability to climate and soil and on account of the comparative high yield. It was formerly held that corn was the best crop for silage and some experiences seem to indicate that the sorghums, and particularly the sweet sorghums, could not be used for silage, because it would result in a sour silage and be unfit for feed. The Kansas Experiment Station has shown that it is possible to make a first class silage out of the sorghum crops and they are now being generally used in place of corn. The time to put these crops into the silo is when they are almost mature and if they do not mature before frost it is better to let the frost hit them and ensile them immediately afterward rather than to put them up in an immature, sappy condition.—O. E. REED, Kansas Experiment Station.

Repair Equipment During Winter.

So long as good weather continues in the fall most farmers are so busy with threshing, corn and potato harvest, fall seeding, hauling, etc., that less important work is usually postponed until winter. However, the exercise of a little thought and the expenditure of a very few minutes at this season will often save not only hours but days later on when the weather and roads get bad and outdoor work is impossible.

Then the odd jobs of overhauling the farm equipment, repairing, painting, etc., which have been put off until a slack season, will require attention; but all too often the necessary materials will not be on hand, and the work will be delayed until it is possible to make a trip to town, and not infrequently it remains undone until the busy season the following year, when necessity demands it.

A list should be made of the things that will be wanted for this work. It will only take a few minutes to jot them down as they are brought to mind, and then on the next trip to town they may be bought and set aside so they will be ready when wanted. The condition of the different machines which will, or should be, overhauled should be noted, and the parts which will need to be replaced purchased. Then there are the odd jobs of repairing buildings, fences, gates, etc., which will require lumber and nails. There is no need to make an extra trip for them when wanted; they may be brought home the next time a load is taken to town. Likewise the lumber and hardware for the small jobs of construction which should be done before spring. Also the paints, oils, putty, and brushes which will be required in painting the various farm wagons, implements, inside woodwork, furniture, etc., and, above all, the necessary materials for the improvements planned for the house should be obtained, so that they can be completed this winter and not have to wait another year.

Everyone knows how much more satisfactory it is to have the necessary equipment ready to perform a piece of work when an opportunity presents than to get started on it and then find that it will have to be postponed until a trip can be made to town, which, even if the roads are good and the trip can be made at once, means a loss of time and added expense.

It is astonishing how much can be accomplished on rainy days or during slack times, when the tools and materials are at hand, and there should be no difficulty in overhauling practically every implement on the farm during the winter season and have them ready for next season's work. The value of these "stitches in time" is frequently out of all proportion to the small amount of time they require. Aside from the satisfaction of having each implement in first class shape when it is needed, there is the actual saving accomplished by avoiding having horses and hired help standing idle while repairs are being made, which, in turn, frequently means a loss of part of a crop.

It is useless to go into detail concerning the many jobs which can be accomplished with profit during the winter months; there are plenty of them which will occur to the farmer who will spend a few minutes in considering the matter.

Many farmers wish that they had that silo they neglected to build last summer.

**READ KANSAS FARMER'S CLASSIFIED
ADVERTISING PAGE FOR READY BARGAINS**

Outlook For Dairy Industry Bright

As we look into the dairy world mirror for 1915, we see reflected, in the face of unusual conditions, a bright outlook for the coming year. And this reflection is not mere fancy. It is perhaps the nature of the dairyman and breeder of dairy cattle to always take an optimistic view and put on a bold front, even when difficulties loom up. But he has good reason to take this view. Backed by the dairy cow, which turns his farm into a highly productive manufacturing plant, he basins his operations on the most economic and profitable system of farming. The foundation of a billion dollar industry, as she is, the dairy cow fills no small place in the world's affairs.

The beef animal of course has a place, but its place is not on high priced land, and we know of no more convincing testimony in this regard than comes from President Waters of the Kansas State Agricultural College, who said before the last Ohio state dairy convention: "I am a beef man, and if I know anything of live stock at all it is along the line of beef production; and yet I appreciate as keenly as anyone that the beef business is not economical when it comes to intensive agriculture. The beef steer is not the economical producer that the dairy cow is. The dairy cow is the only animal that can stay on high priced land and make a profit. You cannot feed high priced products to the beef animal and make a profit, but the dairy cow can stay on the highest priced land." Dairy-men should use this quotation as a slogan, not that they do not already know this truth as stated, but it will be a most convincing argument to those on the verge of changing their farming systems.

What has happened in the dairy world in 1915? No need to mention the dreaded topic "foot-and-mouth." We think it has had its share of the lime light, and are glad at last to say that it has died of general wear and tear and old age. With this—the chief cause of the dairymen's troubles the last year—disposed of, and assurance on the part of officials that they will be able to control any future outbreaks, dairymen and breeders can feel that they can act with more safety in the future.

One of the good movements of the year for the "man behind the cow" was the organization of the National Dairy Council at Chicago. This organization is national in scope, as its name indicates, and is made up of individuals and associations, local and state, and of all bodies interested in the dairy industry. The council proposes to conduct a publicity campaign for milk and other dairy products, and from the spirit with which the work is being started, it looks as though much would be accomplished. An organization of this kind has been needed for a long time, and it is to be hoped that dairymen will support it in such a way as to make it return the service promised.

Conditions that prevented holding of dairy shows and private and public sales have not apparently interfered with meetings of dairymen, and the records show that more local dairy meetings have been held than ever before. The majority of the states of the Union have dairy associations. These have held conventions, mostly during the winter season, and a number of local organizations have convened. All this shows the "get-together-spirit" manifested by dairymen. The dairyman, of necessity always closely confined to his work, obtains both pleasure and profit in attending a dairy gathering, where he can exchange experiences and weigh evidence as presented by leaders in his line of work. He therefore finds recreation as well as profit in his dairy association connections.

Cow test association work has grown most encouragingly. As reported by the federal authorities, nearly two hundred co-operative cow testing associations are in operation in the United States at the present time. The first organization of this kind in this country was formed in Michigan in 1905. The growth has been slow, but steady, and is likely to be much more rapid in the future. Europe has nearly 3,000 such associations. That this work is profitable has been proven beyond a doubt. In the Michigan association, the first one formed, there are seven herds that have remained continuously in the work ever since it was started. In 1906 they included fifty cows and in 1913, sixty-nine cows. In 1906 the average yield for each cow was 5,885 pounds of milk and 231.1 pounds of butter fat; in 1913 it was 6,123.4 pounds of milk and 284.7 pounds of fat. In the meantime prices of both feed and dairy products had risen. The profit,

however, to the dairymen in the association rose as well. For each cow it was, in 1906, \$22.23 and in 1913 it was \$51.08, or an increase of \$28.85. It certainly paid these dairymen, therefore, to employ a tester even if it cost them \$1.50 a year for each cow.

The first official cow test association organized in the United States, and which is operating successfully, is the Indianapolis Cow Testing Association. Dr. G. V. Woollen of Indianapolis is president, and Mr. George M. Weber, Indianapolis, is secretary. The work is supervised by Purdue University and conducted like regular cow test associations, excepting that the official test rules are followed, and the tests are accepted by them. The total cost to each member is \$70. The saving in expense over the ordinary way of official testing work is the tester's traveling expenses. Nine members constitute a unit; that is all that one tester can handle, and the amount paid by the members pays his salary and expenses.

Considering the dairy cow and the marketing of her product, we know of no animal on the farm whose product is more easily marketed. If one way is not convenient there are others. Nearness to market is not a necessity in the case of the dairy cow, though of course it is advantageous. The dairyman

located many miles from a railroad, or even far from a town or city, can keep a herd of dairy cows and make money, where he would be at a disadvantage with any other kind of stock. The product made up in the form of butter need not be delivered more than once a week, or cream two or three times a week, and he can raise the offspring of his herd at the same time and sell the surplus at profitable prices. The nearer the market he is located, of course the more convenient, and selling whole milk or sweet cream or ice cream, will bring large returns, while his business will increase in volume in proportion to the quality of his product and his salesmanship ability. In the matter of breeding stock his market is as large as the whole world, there being no limit. Though business has been quiet and trade in breeding stock at a standstill for many months, the dairy cow has kept plodding straight ahead, and continues to supply a ready market day in and day out with her needful product. Her product is going to be in greater demand than ever, and as Colonel Perry says, "It's up to you people to get ready to feed the people."—Jersey Bulletin.

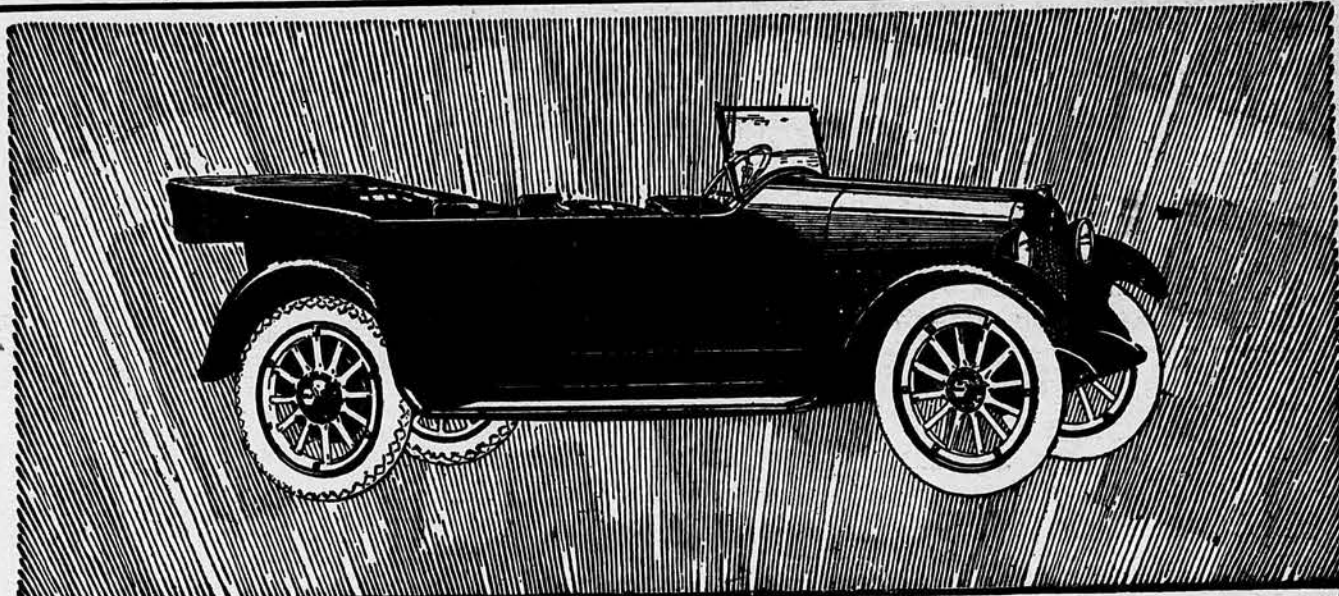
Farmers will make more money by separating a reasonably thick cream than a thin cream. Skimming high test cream leaves more skim milk on the farm to feed to hogs, calves and chickens. Skim milk utilized in this way has a feeding value of about 35 cents per hundred,

while, if the milk is left in the cream, nothing is realized. The butter maker usually wants a cream testing around 35 or 40 per cent butter fat. In the winter, if the cream is above 40 per cent, it is rather difficult to get the cream all out of one can into another or into a vat. Cream testing about 35 per cent in the winter and 40 per cent in the summer is right for butter making.

Men in charge of 43 cow testing associations in Wisconsin who have found the Babcock test the biggest single asset to their business success as breeders and producers of profitable dairy cattle will hold a conference in Madison during the Wisconsin Farm and Home Week, February 7-12. The twenty-fifth anniversary of the invention of the famous butter fat test by Dr. S. M. Babcock will be the central idea of the program, and a Dairy Products Exposition in the live stock pavilion will make the meeting of cow testers especially noteworthy.

Don't neglect the bedding for the stalled animals these days. We have never been a stalled animal, but can imagine nothing could be more uncomfortable than a neglected stall.

It is money well invested and gives a community a look of prosperity to see well painted buildings and a good machine shed where all farm machinery can be stored.



Specifications:

WHEEL BASE: 120 inch.
MOTOR: Four cylinder, bore 3 3/4 inch, stroke 6 inch, cylinders cast on block integral with crank case, L. Head, 40-45 B. H. P.
 Westinghouse ignition, starting, lighting.
 Lubrication—Force feed to crank shaft and cam shaft bearings; splash to piston pins and cylinder walls.
 Carburetor of special design, with feed by gravity from cowl tank, dash adjustment.
 Radiator—Cellular type, with thermosiphon circulating system.
CLUTCH: Cone.
TRANSMISSION: Selective, three speeds forward and one reverse; three point suspension, in unit with power plant, left hand drive, center control, Timken bearings. Spicer universal joint.
AXLES: Rear—Weston-Mott; 3/4 float-ing, with spiral bevel gears; torque and drive thrust taken by torque tube to rear end of transmission through a ball and socket joint; pinion shaft provided with two Bock, roller type, bearings. Front—I-beam, designed and built by Case; Timken bearings; I-beam section, steering arms, steering knuckles and king pins all of special chrome nickel steel—forged, heat treated and machined in our shops.
FRAME: Designed with exceptionally deep section, greatest depth at center where front hanger of cantilever spring is suspended.
SPRINGS: Rear—Cantilever, 50 inches long, 2 1/2 inches wide; attached to rear axle by means of universal joints, which take all side play, allowing springs to do full spring duty—an exclusive feature in construction.
WHEELS: 34x4 inch, Artillery type, with Goodyear detachable, demountable rims.
BODY: All steel, with removable upholstery of genuine grain leather. Front seats divided, and are adjustable forward and backward, as are the clutch and brake pedals. Finish—Brewster green, with ivory stripe.
EQUIPMENT: One-man top, with dust hood and quickly adjustable side curtains. Stewart-Warner Speedometer. Windshield—Rain vision, ventilating. Tires—Goodyear 34x4 inch, non-skid on rear. Motor-driven horn. Regular tools, tire repair kit, etc., etc.
PRICE: \$1090, f. o. b. Racine.

Tomorrow's Car Today

Now comes the new Case 40. Born and bred in the midst of Case ideals, it looms forth as a car that is bound to carry the Case Standard even higher and higher.

While quite different—while lower in price—the new Case 40 is designed for the substantial sort of man who is not swayed by passing innovations—the man who is cautious and wants a tried, riskless car. For 74 years Case executives and workmen have been building according to Case standard—never leaving that straightaway path called Quality which has brought such world-wide reputation. The Case Cars are built entirely by Case trained workmen in the Case plants.

"Friends of the Forty"

Everywhere are men who know the former Case 40—men who found it well worth \$2300. These men particularly will welcome this announcement—for now they can recommend the new Case 40, with its obvious improvements, to their friends. Owners will tell of its serviceability—of its modest upkeep and how it resists depreciation. The splendid service of the former Case 40 can be expected of our new 40.

The refinements of this car are individual. Its combination of excellencies is bound to be appreciated and wanted by the motor-wise and discriminating. We predict a well-deserved sensation for this car.

An Ovation is Certain

At \$1090—over a thousand dollars less than our other 40—we offer this new Case 40—knowing that men who compare values closely and who look for long-lived cars will say, "Here is a car I must know." And we say—"The more you know of this hundred thousand mile car the better."

We invite minute examination of this car. Then you can go over it point by point. You will find it well worth while, we believe. Preliminary data we shall send at your request.

J. I. CASE T. M. COMPANY, INC.
 535 Liberty St. (Founded 1842) Racine, Wis.



The Sign of Mechanical Excellence the World Over



You Need This Feed Grinder



International
Harvester
Feed Grinders

IF you are feeding stock, an International feed grinder will soon pay for itself. Whether you are buying ground feed, or feeding whole grain, using your own feed grinder will make a saving for you. In the one case it saves you the miller's profit for grinding, in the other it saves nearly, if not quite, one-fourth of the grain you feed. Besides, it saves all the cob meal, enables you to market steers and hogs in less time, gives you more milk from cows and more work from your horses for the cost of feed they get.

An International is the feed grinder you need, because, with three styles and seven sizes to choose from, all of the highest quality, you can get an International feed grinder of just the right type for your work. Type B grinds corn on the cob and small grain. Type C is for small grain only. Type D is a heavy grinder, used for corn in the husk, Kaffir corn in the head, and other heavy grinding.

Belt your International feed grinder to a kerosene Mogul or Titan engine, and you couldn't have a better or more economical outfit. Let us send you complete information about them. A post card from you will bring it promptly.

International Harvester Company of America



CHICAGO

(Incorporated)

USA

Champion Deering McCormick Milwaukee Osborne Plano

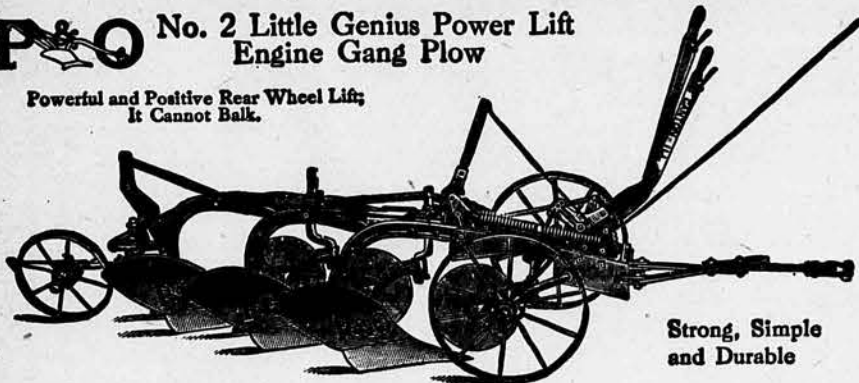


Little Genius Engine Plow

The most successful small sized engine gang plow made; complete and perfect. We want to send you a copy of the many testimonials we have received from all over the country; the strongest endorsements ever given an engine gang plow. The record of the P & O Little Genius is an unbroken series of successes and it is today the most popular engine plow of this type on the market.

P & O No. 2 Little Genius Power Lift Engine Gang Plow

Powerful and Positive Rear Wheel Lift;
It Cannot Balk.



Strong, Simple
and Durable

Two, three and four bottoms, 12 or 14 inch; all standard types. One man operates both engine and plow. Power lift in; power lift out. Power lift operates all three wheels, giving high, level lift. Hitch adapted to all types of tractors. Wood break pin protects both engine and plow against injury. Bottoms leave straight headlands. Has strength to spare. "It's the Way We Build Them."

Write for circulars and catalog. Explain your plow problems to us; we can give you valuable information. We make a P & O Engine Plow that will meet your requirements.



Ask Your Dealer or Write to Nearest
P & O House

Parlin & Orendorff Co.
Canton, Illinois

Branch Houses: Dallas, Tex., Kansas City, Mo., Minneapolis, Minn., St. Louis, Mo., Omaha, Neb., Portland, Ore., Sioux Falls, S. D., Denver, Col., Oklahoma City, Okla., Spokane, Wash.



WHEAT IMPROVEMENT

AN improved strain of wheat that is yielding three bushels more an acre than the best Kharkov and Turkey wheat, has been developed at the Kansas Experiment Station. At the meeting of the State Board of Agriculture held in Topeka last week, W. M. Jardine, director of the experiment station, explained in considerable detail how this new strain had been produced. The station has greatly improved the Kharkov and Turkey wheat by selection methods, and thousands of bushels of improved seed of these varieties have been sent out over the state. The station workers are constantly on the lookout for improved strains, and in their work make thousands of head selections from standard varieties. These are tested out by planting the seed from each head in a row by itself. The greater proportion of these are discarded after the first trial, only a few giving such results as would warrant their being tried out again.

Through such painstaking methods of selection a few pedigreed strains, as they are called, have been found that are superior in many ways to the standard varieties. Of course, the first point to consider is the matter of yield, but this is not sufficient, for the wheat must be of such quality as will meet the demands of millers for flour. It must have a stiff straw so that it will stand up in the field.

In his talk, Dean Jardine gave some of the results of planting two different strains known as "762" and "706." These strains have been grown on the college farm for five years, and during that time have averaged thirty-one bushels an acre in yield, as compared with twenty-eight bushels which was the average yield for both Kharkov and Turkey. The conditions of growth were as nearly uniform as it was possible to make them.

The finding of a variety that will give such results on the college farm, does not in itself prove that it will be satisfactory and give equally good results in other parts of the state. The only way to find this out is to make trial plantings, and this is exactly what has been done. The experiment station has secured the co-operation of hundreds of farmers in various parts of the state. It is impossible for the farmers to handle the little patches of wheat and attend to all the details that are necessary, so men from the station are kept busy visiting these various co-operators. Dean Jardine stated that last year 600 farmers grew these improved strains of wheat in direct comparison with Kharkov, Turkey, and the best local variety. In a chart he showed the results as to average yields for the two years that these two strains have been given this state-wide test. Number 762 has averaged 27½ bushels to the acre; 706, 25½; Kharkov, 23½; Turkey, 24½; and the local variety 23½.

Such work is of inestimable value to the wheat growers of Kansas. The development of a variety of wheat that will yield two or three bushels more an acre will mean the addition of millions of dollars to the value of the wheat crop produced. We were greatly interested in the figures presented showing the quality of these new strains. The model mill which is maintained at Manhattan, enables this work to be carefully done. Baking tests are made, so that it is possible to learn exactly how the flour works out in the making of bread. It is always important to have a flour that will make good bread and as many loaves as possible to the sack. It appears that the amount of gluten or protein contained in the wheat is the important factor in determining the number of loaves of bread a sack of flour will make. The figures showed that strain 762 contained 17.6 per cent protein, while Kharkov contained but 11.4 per cent, and Turkey 13.9.

What is known as "yellow berry" gives considerable trouble in wheat in Kansas. This type of grain has more starch and less protein, and is less desirable for milling purposes. It has always been observed that the darkest colored wheat was grown in the central and western parts of the state, and that seed of this hard, red wheat taken to Eastern Kansas would quickly degenerate into a type where much yellow berry was present. The yellow berry also seems to be more prevalent in specially favorable years when there is more moisture in the

ground as the wheat is filling. We were very much interested in what Dean Jardine told of an effort that is being made to find a strain that will not degenerate under the conditions mentioned above. He passed around some samples of wheat that had been grown a number of years under varying conditions, and from a study of these samples it seemed that this particular strain maintained its hard, red character, while ordinary varieties of wheat were developing the yellow berry. The finding of such strain of wheat is of great value, since it means that the quality of the wheat produced will be greatly improved. It will also widen the area in which wheat of superior quality can be grown.

Another point in wheat growing that would save money if put into practice, was brought up in the course of this talk. Probably many experienced wheat growers have observed that when wheat is seeded comparatively early it does not require as much seed to the acre as when seeded later. This has been carefully studied at the experiment station, and it was found in some parts of the state that two pecks to the acre gave just as good yield as did three pecks when seeded comparatively early. The later the wheat is planted the more seed must be sown. Wheat growers could save themselves money by securing the exact data on this point, so that they need not sow more seed than is necessary to secure maximum results.

It must be understood, of course, that Hessian fly danger must always be guarded against. Sometimes it is necessary to seed wheat later in the season than might be otherwise desirable, in order to avoid serious fly infestation. When this is the case, it is important to know how much extra seed should be sown to counteract the late date.

Talks by Corn Growers.

One of the interesting features of the recent meeting of the State Board of Agriculture, was a series of ten-minute talks by practical corn growers. John S. Ellenbecker, of Marshall County, represented the northeastern section of the state. Mr. Ellenbecker is not only a successful corn grower, but he is able to get up before an audience and tell in a most interesting manner of his experiences. He stated that the early settlers in Kansas felt sure that the soil would never wear out. They soon learned that they must expect occasional dry spells, and sometimes the ravages of insects, but the soil seemed inexhaustible. The present generation, however, has learned that the soil can be worn out, and in Northeastern Kansas many farms are now so thoroughly depleted in fertility that corn can no longer be grown successfully.

Mr. Ellenbecker told how he had taken a worn-out farm some ten or twelve years ago and brought it back to a state of virgin fertility. The first move he made was to begin the feeding of live stock. Every winter he purchased a carload or two of sheep, calves, or cattle, and fed to them all the rough feed he could produce. He put up sheds so that the cattle would be sheltered and the manure protected against waste. During that period of time he hauled out three or four hundred loads of barnyard manure each year. He early became interested in alfalfa, and endeavored to keep at least a third of the farm in this crop. His persistence in following this policy of feeding live stock and returning the fertility to the land, has brought about a wonderful change. When he began the land would not produce to exceed fifteen to twenty bushels of corn to the acre. He is now growing two or three times that much.

This farm is a fair sample for that part of the state. In its run-down condition the best yields that could be produced were not enough to pay taxes and a decent income on the investment. Many farmers have the idea that feeding cattle as Mr. Ellenbecker has done, involves the use of a lot of expensive feed. This is not the case. During all this time he finished no stock for market except lambs. It was simply a matter of buying the animals that had some growth and development in them and feeding them the low-grade feeds of the farm and getting the profit from the grain in growth and the manure produced.

Many young men—and older men,

BOYS THIS CRACK SHOT RIFLE Will Be Given As a Prize! FREE



Here is a prize that will please every live wide-awake boy that likes to shoot. This is NOT A TOY gun, but a regular target or hunting rifle that shoots 22 LONG OR SHORT standard cartridges. It is made by one of the biggest and most reliable fire arms firms in the world and is guaranteed to shoot accurately. We are going to give away several hundred of these fine guns to boys who will get only four one-year subscriptions to Kansas Farmer at \$1 each, the regular subscription price. You can get them in half an hour. We pay express charges, so the gun don't cost you a cent of your money. You can get two three-year subscriptions at \$2 each, just so you send a \$4 club. Address your order to

KANSAS FARMER, 625 Jackson Street, Topeka, Kansas

also—figure that it takes too much in the way of equipment to handle live stock as was done on this farm. Mr. Ellenbecker made it clear that he had not been compelled to spend a great amount of money in equipping the farm to handle live stock. He learned early in the game, however, that he could not afford to let his alfalfa hay stand without protection. Frequently hay was put up in the best of condition, but when the stacks were opened later they were found to be very seriously damaged. He put up barns for storing this hay, and found that the saving in feed value made them profitable investments.

In hauling out this large amount of manure he has not as yet made use of a manure spreader. Each time he had \$100 he saw some man about town in need of a job and hired him to haul out manure from town to spread on his farm. Frank Rude, one of the successful farmers of Shawnee County, stated he did not see how a man handling so much manure could get along without a manure spreader; he said he would save enough in one year to pay for a spreader, the manure being spread so much more evenly that greatly increased crop would follow. We believe Mr. Rude is right on this point. Spreading manure by hand is a laborious process, and can never be so well done as by the use of the spreader.

Mr. Ellenbecker closed by stating that Kansas farms must be enriched through the growing of alfalfa and the feeding of live stock if corn yields are to be increased. Rotation of crops alone will not bring about the desired result. It is absolutely necessary to feed stock and haul out the manure.

Cowpeas Increase Soil Fertility.

When P. H. Ross went to Leavenworth County four years ago as agricultural agent, he found many farms in the county in a badly worn-out condition. A fertile soil is the basis of successful agriculture, and it seemed to him that the principal problem in that county was to rebuild these worn-out farms. As a quick means of showing what could be done, the farm bureau furnished enough cowpeas to plant an acre on a number of farms in the county. These cowpeas were distributed by Mr. Ross, and they were planted, and along in the fall the crop was plowed under. As a result of the fertility added by plowing under this crop of cowpeas, the yield of potatoes the following year was increased twenty-five bushels an acre over a similar plot that did not grow a crop of cowpeas. Corn was increased at the rate of nine bushels an acre, and wheat five bushels an acre. The seed bed upon which the wheat was sown was poor. It is not an easy matter to prepare a suitable seed bed after plowing under a green manuring crop. It is usually a better plan to follow the turning under of a crop of cowpeas with corn. The purpose of this demonstration, however, was accomplished. It showed that even so simple a measure as turning back a little fertility in the form of a green manure crop, would immediately show in the crop following.

The farm bureau of Leavenworth County has been systematically working along the line of soil improvement ever since its organization. More live stock has been introduced into the county. Silos have been built, and when all the farmers of the county begin to take systematic measures to rebuild their soil, the yields of the staple crops of the county will begin to increase.

Tiling the Draws.

In the eastern part of Kansas drain tile can be used most profitably to reclaim many wet, boggy spots in farm land, also for draining draws and gullies, and thus stop the washing of the soil. On nearly every farm in this section there are good fields having draws or washes running through the farm land. These cannot be crossed with the farm implements, and so cause considerable trouble and loss to the farmer and lower the value of his farm. These spots can be closed and filled in permanently by properly tiling and obstructing with dirt riffles.

On my farm there are many draws and boggy places. I tried almost everything, but failed to get permanent results. Sowing to grass and checking the washing by the use of straw or brush, was good, but not permanent, nor did this method drain the seeping water that caused the trouble. I had never seen any tiling done, but decided to try it on a draw. It worked well. Three years ago I put 1,000 feet of tile into this draw, which had an average width of six rods and was very wet, caused by seepage from above. The tile drained the spot and keeps it dry and mellow. We now cross it and it produces better yields than any other part of the field.

The past fall I put in about 6,000 feet of tile and expect to put in more each year as we have time to do the work, until the entire farm is drained. I use 4-inch tile and dig the trench about thirty inches deep. Rightly finishing the bottom of the trench is very important. There must be some fall and the tile must be perfectly fitted end to end. (Then cut in about six inches of side dirt on the tile and tamp and break in the sides with a spade and finish with a team and plow.) It can be easily done with a little experience.

The draws and washes that are ruining many good fields can be easily and permanently remedied by the use of drain tile. In finishing the work, riffles or small dams should be made crosswise one rod apart. This is easily done by putting the dirt thrown from the trench, where these dirt riffles come and then stretching them along as necessary. The rougher the ground is left, the better. The trench should not be completely filled. Tile smaller than four inches should not be used.

Without the tile this work would all wash away, as the water would accumulate back of the riffles and break them down. The tile takes the water away rapidly and stops seepage after rains. The drain tile method is specially adapted to fields having a sway that causes the storm water to accumulate and break across the field, washing a ditch and starting a draw.

My tile cost \$15 per thousand feet at the factory in carlots, or f. o. b. It is worth the money it costs and the work necessary to put in on any farm. The satisfaction of being able to farm across a wet draw and grow a good crop where nothing but weeds and grass grew before, and to stop the washing of the land, is worth all its costs.—J. M. GARRETT, Osage County.

Winter Care of Breeding Ewes.

It is very important that the ewes of the flock be put in proper condition before lambing time as otherwise the farmer or breeder can expect only a small percentage of lambs. There are two conditions that may result in the raising of a small percentage of lambs. First, many people have the impression that the ewes can be kept throughout the year on coarse rough feeds with no grain except perhaps a small amount after lambing. The result is that the ewes being thin at lambing time produce weak lambs and do not produce enough milk to keep the lamb alive for the first few days. The second condition, in which the ewes are too fat, is far less common, but does occur. If the ewes have had the run of a good pasture during the summer, they may be in very high condition in early winter. Then if rather heavy grain feeding is started early the ewes may become too fat for best results. In any flock of great size, there is always much individual variation in the tendency of the ewes to put on fat. For this reason, it is often advisable to divide the flock, putting the fatter ewes together and feeding them rather light until near lambing time. The ewes thin in condition should be fed enough to bring them to good breeding condition before lambing.

If the ewes are in good breeding condition in the fall and a good quality of roughage is fed, no grain need be given until about three or four weeks before the beginning of the lambing season. The grain then given should consist of feeds that favor a good milk flow as oats or bran. A mixture of the two should prove very satisfactory. Up to the time of lambing, only about one-half to three-quarters of a pound per day need be fed.

After the lambing period, the amount should be increased somewhat. The proper amount to feed then would depend on the size of the ewes, the percentage of lambs and other factors.

The question of roughage for ewes is a very important one. Alfalfa and clover hay are almost essential if the very best results are to be obtained. Very coarse fibrous hays, especially timothy, have been shown to be very objectionable as a roughage for pregnant ewes. Some form of succulent feed as roots or corn silage can be used to very great advantage if the cost is not prohibitive.

The feeding should not be the only consideration in the management of the flock, but the question of shelter and exercise are equally important. Close housing not only is not essential, but should be guarded against and instead a more open house or shed should be provided. Warmth of the house is not an important consideration, for if kept dry, the sheep's fleece will serve to keep the body warm. Care should be taken that the sheep do not have to stand around in damp muddy places.—C. V. SINGLETON, Idaho Experiment Station.

A Triumph in Tractor Building!

"WATERLOO BOY"

Will plow over 60 miles of furrow a day at a fuel cost of less than \$1.50. Self-steering when plowing.

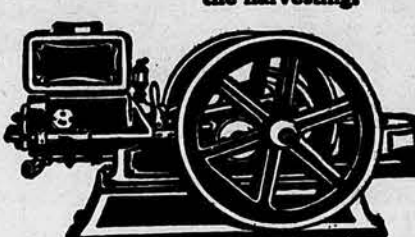


\$750

Easily pulls three 14-inch plows 8 inches deep in heavy soil.

Have your tractor ready for this year's work—the spring plowing, the seeding, the harvesting.

Waterloo Boy Farm Machines
The Recognized World Standard
Awarded Gold Medals at Three International Expositions



Write for Free Illustrated Catalogs on the
Waterloo Boy Kerosene Tractor
Waterloo Boy Kerosene-Gasoline Engine
Waterloo Boy Milking Machine
Waterloo Boy Cream Separator

Waterloo Gasoline Engine Co.
1003 W. 3rd Ave. Waterloo, Iowa

Waterloo Boy Kerosene-Gasoline Engine is hopper-cooled, frost-proof, easy starting winter or summer.

The Waterloo Boy Milking Machine is in successful use at leading dairies. Let us tell you about it.

American Fence

and Steel Fence Posts

AWARDED
PANAMA PACIFIC
GRAND PRIZE
INTERNATIONAL EXPOSITION

Big, full gauge wires—full weight—full length rolls woven with a mechanically hinged joint. Superior quality galvanizing—proof against hot sun, sleet and snow.

American Steel Fence Posts, cheaper than wood and more durable. Last a lifetime. Hold fence secure against all conditions.

Sent Free Write for booklet on how to set posts and erect fence. Every farmer should have it.

Dealers Everywhere
AMERICAN STEEL & WIRE COMPANY
Chicago New York Pittsburgh Cleveland Denver

SPECIAL OFFER ON This Splendid Farm Book

"THE STORY OF THE SOIL"

Is an intensely interesting volume giving you in the form of a story, all the essential facts regarding the formation of soil, how to fertilize it, what fertilizers accomplish, how to restore flooded or wornout land, what are the plant foods, and treating in a simple way some of the big agricultural problems of the United States. Every farmer should have this book, if not for himself, then for his sons and daughters. It will interest them in nature and they will get an insight into soil culture that they may not obtain in any other way. The author of the book is Cyril G. Hopkins, of the University of Illinois, one of the foremost authorities on scientific farming. The cloth bound edition price by mail is \$1.15. However, Kansas Farmer has secured the same volume, 362 pages, complete on good paper and large clear type, in paper binding, with beautiful colored illustrations, and we will send this book postpaid and enter or renew your subscription to Kansas Farmer for one year for only \$1.10. This is our best book bargain for this year. Send all orders to

KANSAS FARMER, TOPEKA, KANSAS

THE STORY OF THE SOIL

by
CYRIL G. HOPKINS

of
The University of Illinois

Author of
SOIL FERTILITY AND
PERMANENT
AGRICULTURE

Published for
KANSAS FARMER
Topeka, Kansas

SPECIAL EDITION

I Want to Send Every Reader of This Paper



a Big Can of CORONA WOOL FAT
By Mail—Postpaid—
20 Days' Free Trial

I don't even ask you to risk a penny for postage. I want to prove to you before you pay and at my risk, that Corona Wool Fat is the greatest healing compound ever used on the farm for all kinds of hoof and skin diseases. Produced from the skin and wool of the sheep, this great natural remedy has no equal as a cure for Hard and Contracted Feet, Hind Feet, Split Hoofs, Corns, Galled Hocks, Thrush, Quarter Cracks, Barb Wire Cuts, Galled Shoulders, Sore Tails of Cows, Ulcers, etc. It

Heals Without a Scar

grows back over cuts and sores—makes new hoofs. Often worth hundreds of dollars by saving injured animals from lameness and permanent blemish.

Send No Money—I Pay the Postage

If you have never sent for a trial can, just drop me a postcard or letter saying you want to try Corona Wool Fat 30 days at my risk. Use it according to directions and when the 30 days are up if you find it does what I claim, send only \$1.00 payment in full—if you are not pleased, simply say so. I'll take your word for it and cancel the charge. Write today. Mention ad when you intend to use it on.

C. C. PHILLIPS, Manager
CORONA MFG. CO.
250 Corona Bldg., Boston, U.S.A.

ANY silo is better than no silo, but no silo is better than the

INDIANA SILO

Get our catalog and the book that tells what owners of the Indiana Silo think about it.

Write today for early buyers' money-saving proposition. Address nearest office.

THE INDIANA SILO CO., 61 Fulton Bldg., Anderson, Ind.
Kansas City, Mo. Des Moines, Ia. St. Paul, Minn.
517 Exchange Bldg., 617 Indiana Bldg., 617 One Bank Bldg.,

FITZ

—Speaking of Service—

You don't expect to keep a pair of overalls on a silver platter—you wear 'em to work in.

FITZ OVERALLS

Wear like Hickory—give the kind of service you have a right to expect—and they fit. If your dealer hasn't your size, he can get it in 24 hours from

BURNHAM-MUNGER-ROOT

Dry Goods Co.
Kansas City, Missouri.

Sporicide SURE CURE FOR Smut

in oats. Simple to treat. Sent direct on trial where we have no agent. Free booklet. Local agents wanted. Established 1905.

SPORICIDE CHEMICAL CO. ATLANTA, N. Y.

Advertisers in Kansas Farmer are reliable and sell dependable merchandise. Tell them where you saw their ad.

MONEY TO LOAN

On Improved Kansas Farm Lands.

Quick Action

A. T. REID

Topeka, Kansas



Proper Equipment for Pork Production

WE have seen men try to grow hogs with no other equipment than such as the hogs could share with cattle or other live stock. Partly grown shoats or mature hogs can get along under such conditions, but the farmer who attempts to breed sows, save the pigs and grow them out into feeding hogs and make money at it, cannot get along without some special equipment suitable for the purpose. We are frequently told of the old sow that "hid out" her nest in the straw stack or down by the creek bank and brought out a thrifty litter of pigs, but these are the exceptions and not the general rule.

Proper housing, an abundant supply of pure water, and plenty of good hog fence, are essential to the highest success in pork production. At the recent meeting of the Improved Stock Breeders' Association, H. B. Walter, of Effingham, gave a talk on the subject, "Some Essentials in Pork Production." Mr. Walter has been unusually successful in growing hogs. We quote from him as follows relative to the matter of proper equipment:

"One must have some equipment to handle hogs successfully. He must provide shelter, both for summer and winter, but it does not necessarily need to be expensive. Some prefer a permanent house and others prefer individual, or two-pen movable houses. I use the movable house. Each kind has its advantages and disadvantages. One great advantage of the movable house is that it is easier to keep your hogs in different lots and fields, thereby keeping conditions more sanitary and also saving every bit of the fertilizer and getting it scattered just where you want it, and that without much labor. This is easily accomplished by placing sleeping quarters at one end of the field and feeding quarters at the other. This plan affords plenty of exercise, which is especially needed for brood sows.

"We must have some system of supplying water for our animals, as over 90 per cent of the body is composed of water. The amount of water they consume is an index to the gain they are making. Good, clean water should be where they can get it whenever desired. I believe this one point is neglected more on the average farm than any other item. Most men are usually quite careful to feed their animals, but it has been my observation that on many farms sufficient water has been neglected. Water should be supplied in sufficient quantities and in sanitary condition. In winter it is best to supply it direct from the well, for if given ice water hogs will not drink as much water as they should. I use a water heater to warm the water used in slopping in winter time, and I believe I appreciate this equipment as much as any that I have. I am sure the little pigs enjoy a good warm meal in cold weather. I also have a tank so arranged that a lamp is placed under the water, and I like this device very much, too.

"Another big item in our necessary equipment is fencing. All of the farms should be fenced, if possible, and divided into fields and lots, as one can keep his hogs in better condition where he has a change of lots for them. I like to plow up some of these old lots and grow a crop on them, as this brings them in a nice condition for the hogs again. Where you can turn them into the fields after the crop is harvested they will pick up enough of the waste grain to make quite

a saving. In some seasons when the grain is down and tangled, the hogs are about the only means of saving it."

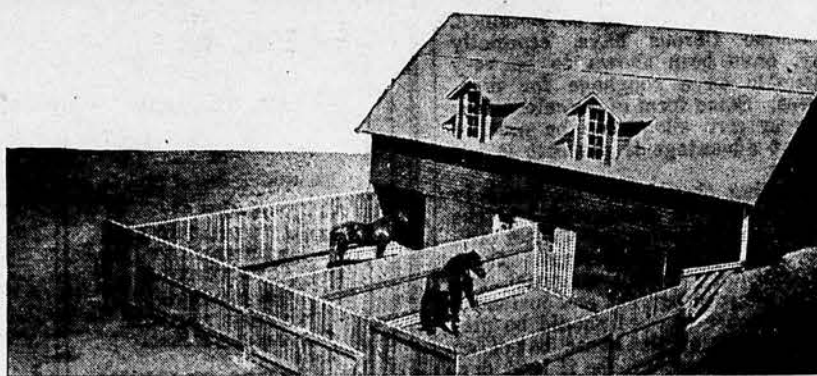
Hog Breeders and Cholera.

It has been conservatively estimated that fully 90 per cent of hog losses are due to cholera. This means that when hogs get sick the chances are that nine times in ten the disease can be diagnosed as cholera. It is no wonder that when hog men get together they are certain sooner or later, to bring up this subject of hog cholera.

Breeders of pure-bred hogs are more likely to have the disease in their herds than are those who grow hogs for market. This will be true even though the breeder may be much more careful than is the ordinary hog grower. The question of whether to vaccinate or not, always comes up in such meetings. During the sessions of the stock breeders' meeting last week, a breeder of pure-bred hogs made the statement that he is compelled to vaccinate. He had previously told how extremely careful he is in keeping his yards clean and sanitary, and he was asked why he could not keep cholera out of his herd under these conditions. The answer was that no matter how healthy a herd may be, or how clean the yards are, cholera will develop if infection is brought to the farm, and the breeder cannot prevent this. He may quarantine every animal he brings to his place, but he is being visited constantly by men wishing to look at stock, by advertising representatives, and others. These men go from farm to farm and in the course of their numerous visits become carriers of infection. A breeder might compel every man stepping on his place to disinfect his shoes, but many would resist this suggestion and perhaps a buyer would be driven from the farm. There are still a good many people who do not believe in the transmission of disease through such means.

An instance was cited by Dr. Murphy, who has charge of the cholera demonstration work in Marshall County. The inspector and his assistants were making some post mortems on a farm where the disease was present. While they were at work three men walked into the yard and watched the men at their work for a few moments. After they had gone the doctor asked the owner of the farm if these men were some of his hired hands, and when told they were not, he at once called them back and informed them they must disinfect their shoes before leaving the farm. They objected to this and only when told that the farm was under quarantine and the inspector in charge had authority to arrest them, did they submit to the process of disinfecting. It was learned later that these men were peddling a hog cholera cure.

In the discussion which took place at this meeting, it was apparent that most of the breeders feel that the only safe course is to keep their herds immune to cholera by simultaneous vaccination. This is being systematically done, usually twice a year. The question was raised whether the introduction of virus would not keep the disease on the farm constantly. Mr. Walter stated that he never vaccinates near a sale date and he always keeps a few susceptible pigs on the farm so that he can know whether or not any infection has escaped. His advice to the general pork producers was to use every precaution possible in the way of cleanliness about the quarters and then vaccinate whenever it seems necessary to do so to avoid losses.



THIS STALLION BARN IS ON FARM OF GEORGE E. PALMER, ELLIS COUNTY. — IT IS WELL ADAPTED TO ITS PURPOSE



If this farm paper doesn't make you happier, stop it and get your money back

No preaching — but nearly 1,000,000 homes are better places to live in because there's one paper that feels and voices the real needs of the farmer and his family, as well as the needs of his acres and his stock.

Have you the time to read a paper that makes you glad you live in the glorious country? Send \$1 for five years; or write for free sample of Farm Journal and free copy of Poor Richard Almanac for 1916. Write today to

The Farm Journal

174 Washington Square, Philadelphia

15 95¢ UPWARD
ON TRIAL
Fully Guaranteed

American Cream Separator

A SOLID PROPOSITION to send new, well made, easy running, perfect skimming separator for \$15.00. Sifts warm or cold milk making heavy or light cream. Bowl is a sanitary marvel, easily cleaned. **ABSOLUTELY ON APPROVAL.** Gears thoroughly protected. Different from this picture, which illustrates our large capacity machines. Western orders filled from western points. Whether dairy is large or small write for handsome free catalog. Address: **AMERICAN SEPARATOR CO.** Box 3091, Dainbridge, N. Y.

Eureka Potato Planter

For Large or Small Growers, 1 or 2 rows. Opens furrow, drops seed any distance or depth required, puts on fertilizer (if wanted), covers up, marks row. Accurate, adjustable and dependable. Operated by one man. Furrow is opened directly under axle and seed is dropped in plain sight of operator. Made of steel and malleable iron, assuring long life and few repairs.

Send for Catalog

EUREKA CO.
Box 501,
Utica,
N. Y.

Sold by
Parke & Sons
Flow Co.,
Kansas
City, Mo.

WANTED MEN

\$75. to \$200 a month!

The demand for capable automobile men exceeds the supply. Our graduates are always in demand to fill good positions as Salesmen, Demonstrators, Factory Testers, Garage Managers, Repair Men, Ignition Experts and Drivers.

\$50 COURSE FREE

Six weeks from the day you enter this great school you will be able to repair any make of automobile or drive any car on the market. All who enroll now receive \$50 course in Lighting and Tractor Engineering Free. Write today for our big Free Book and the \$50.00 Free Scholarship Certificate.

AUTOMOBILE TRAINING SCHOOL
1231 Langston Auto School in the World
1609 Locust St., Kansas City, Mo.

10 1/2 A ROD

Get our big, Free Catalog showing 164 styles of fencing and gates. It will save you many a dollar to have your order filled direct from our nearest mill or warehouse in Indiana, Missouri, Colorado, Texas, California or Kansas. Better fence for less money. Write NOW before you forget it.
Ottawa Manufacturing Co. 27 King St., Ottawa, Kansas.

MAKE YOUR BIKE A MOTORCYCLE

At a small cost by using our Attachable outfit, FITS ANY BIKE. Easily attached. No special tools required. Write today for our big Free Book describing the SHAW Motor Attachment. Motorcycles, all makes, new and second-hand, \$35 and up.

SHAW MANUFACTURING CO.
Dept. 140 Colasburg, Kansas.

When writing to KANSAS FARMER live stock advertisers, please mention this paper.

Cost of Pork Production.

At the swine breeders' meeting at Manhattan during Farm Week, it seemed to be the general opinion that pork could not be made profitably when it sold at six to six and a half cents a pound. When corn is selling at fifty to sixty cents a bushel, and pork is bringing but six to six and a half cents a pound, the tendency is to sell the corn and turn off the hogs at light weight. However, hogs have been produced and put on the market profitably even with present prices of feeds, and when pork was selling no higher than it is now.

A good many factors are involved in production cost. When the margin is narrow there must be no losses anywhere along the line. The man who has so managed his brood sows as to get an average of six strong, healthy pigs raised to weaning time, is in better position than is the one who gets an average of only four pigs. The investment in the breeding herd is the same in each case. The feed for the sows has probably cost about the same. But the second man has only two-thirds as many pigs to feed out for market. Hogs that are infested with lice and that are compelled to eat and sleep in filthy quarters will not make as efficient use of their feed as will those that are kept clean.

Rather a remarkable instance of economy in pork production was reported at the state meeting. The boy, Victor Hurd, of Lyon County, produced figures showing that the 308-pound hog he had grown had cost in feed but two and one-half cents a pound. This is a remarkable record, and probably cannot be equaled by those who handle hogs in larger numbers.

We believe that live stock growers generally must figure very close on production cost. It is rather difficult to do this unless some system of accounting is followed so that the cost of producing gains may be determined at any desired time. The man who does not know what it has cost him to produce a 160-pound hog, for example, does not know whether his hog has made him money or not. H. B. Walter, who addressed the stock breeders' meeting last week, stated that he keeps accounts with his hogs and knows absolutely at the end of the year what they have cost him and what his gross receipts have been. It is difficult for a farmer to do the kind of work that is done by experiment stations, but it is not beyond their power to know in a general way what it has cost them to produce their stock.

That pork can be profitably made under present conditions, has been demonstrated by experimental work in hog feeding at the Kansas Experiment Station. It was not done, however, by fattening hogs on corn alone. We recall that in one group of feeding experiments corn was made to return a value of eighty-six cents a bushel, when the pork produced was worth six cents a pound. The corn fed was supplemented with

meat meal which was changed at the rate of \$2.05 a hundred, and shorts at the rate of \$1.50 a hundred. Of course, the meat meal is somewhat higher in price now, but not enough higher to wipe out the margin between 60-cent corn and the 86 cents, which value was returned for each bushel of corn fed. The feeding of the balanced ration is essential to economy in production. More protein is necessary for the pig under a hundred pounds than for the one over this weight, and the hog in the fattening pen requires the least of all. But even here, the proper amount of protein must be supplied or the corn fed will not produce enough pork to equal the value of the corn on the market.

Co-Operative Live Stock Sales.

Co-operation in selling live stock has recently been given a trial in Leavenworth County. In communities where there are a great many breeders having the same kind of live stock, the making of what are known as association sales, is a common practice. In this county, however, the farmers or the breeders have only a small number of animals to sell, and these are of different breeds and kinds. Under such circumstances it is sometimes difficult to dispose of the stock to the best advantage. The farm bureau decided to make an effort to sell stock jointly and thus eliminate some of the expense and secure better prices.

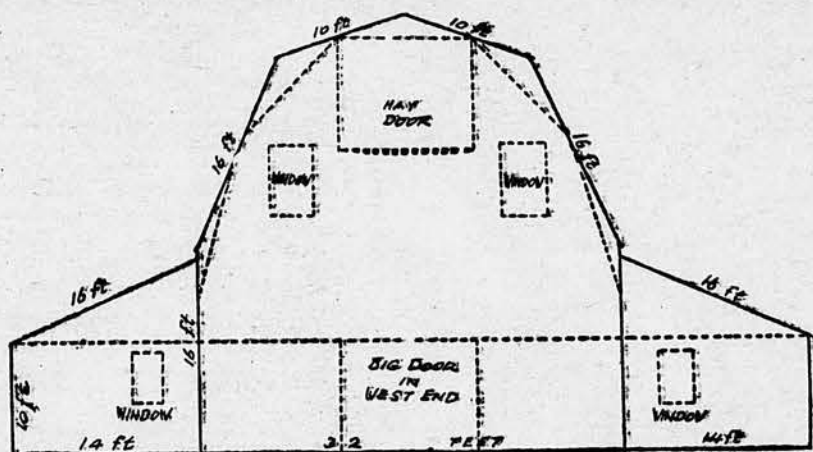
Two of these co-operative sales have been held—one in Leavenworth and the other in Tonganoxie. The results have been very satisfactory. The plan was to have a committee consisting of five farmers, pass on all the animals listed for sale. They not only passed on the animals, but considered whether the man offering them was a farmer in need of such assistance or merely a trader or speculator who wished to use this opportunity to dispose of some of his trading stock. Such men were not permitted to offer stock in these co-operative sales. Precautions were taken to prevent "bidding" and other dishonest practices. The owner was allowed to protect his property, however, in case he thought it did not bring what it should, by paying to the high bidder, one per cent of his bid. This was understood by those offering stock and the purchaser also was aware that the owner could redeem his animal by making this one per cent payment.

Since these two sales have been successfully held, it is likely that this plan for disposing of surplus live stock will be continued.

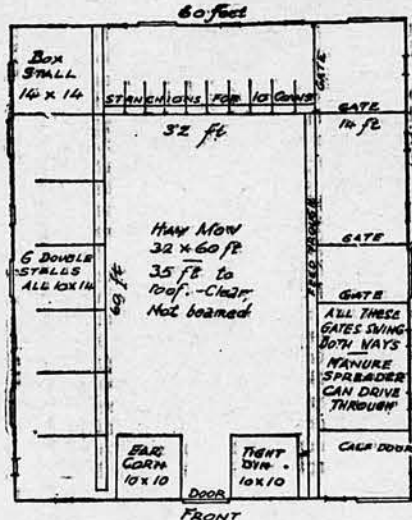
Raise Calves at Half Cost

By using "Brooks Best" Calf Meal. 100 pounds, \$3.25; 500 pounds, \$15.00. Free directions. Brooks Wholesale Co., Ft. Scott, Kan.—[Adv.]

Workmanship and methods used in manufacturing dairy products influence quality and yield.



THIS barn is on the Matson and Crumrine stock farm, Jewell County. It cost \$1,150 and was built to enable the tenant to handle cattle and feed in an economical manner. The hay space is unobstructed by beams or braces. The shed braces the barn on three sides and the corn crib and grain bin strengthen the west end. It is now sheltering forty-seven head of stock. So far the owner has found nothing about the barn that he would care to change. It is a stock barn plan worth studying.



LENDEN

BOOK OF BARN PLANS FREE

If You Intend to Build a New Barn or Remodel an Old One You Should Have This Book

Lenden Barn Plans is not a catalog of barn equipment. It is a complete and valuable book of reference and instruction on barn construction.

The 96 pages of Lenden Barn Plans are full of dollar-saving information. It contains 41 representative designs for cow barns, horse barns, combination and general purpose barns, as well as many other designs for hog barns, pens, hay sheds, chicken houses, etc.

In addition to the barn plans shown in the book, there are 25 pages devoted to general construction problems, such as concrete work, laying floors, roof construction, ventilation, etc.

When Writing for This Book Please State When You Expect to Build, and How Many Cows and Horses You Want to House.

We have designs for nearly 4,000 barns, and our architects will give your letter personal attention. If we learn your exact requirements.

Lenden Barn Equipment

Lenden equipment makes possible a clean, sanitary barn with a minimum of expense. When cows are transferred from dark, dirty barns to Lenden barns the milk flow often increases from 15 to 25 per cent, and the labor of caring for the herd is reduced from one-third to one-half. Lenden equipment is just as great economy for the man with a half dozen head of stock as for the man with hundreds of animals. The percentage of labor saved is the same.

The Lenden Line of Sanitary Steel Equipment Includes:

Little Carriers	Cow Stalls	Hay Loft Equipment	Shovel Pens
Feed Carriers	Horse Stalls	Cow Pens	Water Basins
Milk Can Carriers	Mangers	Calf Pens	Blind Proof Barn Doors
Manure Carriers	Mange Disinfectors	Bull Pens	Hangers
Hay Carriers	Feed Racks	Hog Pens	Fence Hoists and
Feed Trucks			Other Barn Specialties

CATALOGS FREE

The Lenden Machinery Co. (Established 1887) 1580 Grant St., Fairview, Iowa

That's No Imitation—That's "BALL-BAND"

When you see the bright, sound Red Ball you know you are getting "Ball-Band" Rubber Footwear.

"Ball-Band" boots are vacuum cured. During the vulcanizing process causes tremendous pressure on the fabric and rubber and makes the boot one solid piece.

"Ball-Band" Arctics are also made in sizes for women and children. If your dealer can't supply you, write us, we will see that you are fitted.

Free Booklet "More Days Wear"

tells how to make your rubber footwear last longer.

Something New. "Ball-Band" Light Weight Rubbers for street wear in Men's, Women's and Children's sizes. They are "Ball-Band" Quality and Value. Look for the Red Ball on the sole.

Michigan's Rubber Mfg. Co.
216 Water St. Michigan, Ind.
"The House That Pays Millions for Quality"

WITTE ENGINES

BEFORE you buy any kind of a gasoline or kerosene engine, write for my offer, under which I send an engine to earn its own cost while you pay for it. Stationary Engines at less than \$47.50 per horse power—2 H.P. \$54.95; 3 H.P. \$62.45; 4 H.P. \$69.75; 5 H.P. \$77.25; 6 H.P. \$84.75; 8 H.P. \$109.65; 10 H.P. \$127.00; 12 H.P. \$144.40; 15 H.P. \$185.80. (F. O. B. Factory). Portable Engines and Saw-Rigs outside proportionally low. Guaranteed high quality—thoroughly proven during 29 years by many thousands in use. Guaranteed to start in every state.

Cash or Easy Terms 5 Years

For my low prices, and under my easy terms of payment during a whole year, you can now, more easily, and better, afford to own an engine, than to do without one.

Fine Book Free My free book, "How to Judge Engines," will show you how to select the right engine, and it will save you money that you want to save, whether you buy now or later. Write me, now.

ED. H. WITTE, WITTE ENGINE WORKS
1605 Oakland Avenue, Kansas City, Mo.
1605 Empire Building, Pittsburgh, Pa.

READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS

Just One
Gallon
of Oil



X-Ray completely hatches on one gallon of oil—just one filling. Fill the X-Ray tank with one gallon, light the lamp and you are through filling lamps. No cold corners, no overheated sides—X-Ray automatic trip regulates the flame.

X-Ray Incubators and Brooders

Lamp is directly underneath—heat carried by X-Ray Duplex Heater to all corners. Perfect hatches, vigorous chicks the result. X-Ray perfectly level egg tray; X-Ray automatic trip (heat regulator) and X-Ray hinged glass paneled top are a few of the X-Ray Fifteen Special Features.

Express Prepaid
We prepay express to practically all points—delivered by slow freight. Free-book No. 64 of inestimable value to poultry raisers—tells all about X-Ray Incubators and Brooders. Send for it.

The X-Ray Incubator Co.
Dept. 64 Des Moines, Iowa

LET US TAN YOUR HIDE.

Cattle or Horse hide, Calf, Dog, Deer or any kind of skin with hair or fur on. We tan and finish them right; make them into coats (for men and women), robes, rugs or gloves when ordered. Your fur goods will cost you less than to buy them, and be worth more. Our illustrated catalog gives a lot of information which every stock raiser should have, but we never send out this valuable book except upon request. It tells how to take off and care for hides; how and when we pay the freight both ways; about our safe dyeing process which is a tremendous advantage to the customer, especially on horse hides and calf skins; about the fur goods and game trophies we sell, taxidermy, etc. If you want a copy send us your correct address.

The Crosby Fur Company,
571 Lyell Ave., Rochester, N. Y.

Ironclad WINS In 2 Biggest HATCHING CONTESTS Ever Held

140 Egg Incubator } BOTH \$10
Chick Brooder } FOR \$10
If ordered together, 30 days trial, 10-year guarantee. Order direct from this advertisement—money back if not satisfied. Ironclad Incubator is covered with galvanized iron, triple walls, copper tank, spray egg test. Set up ready to run. The brooder is roomy and well made. Send for free catalogue. Ironclad Incubator Co., Box 151, Racine, Wis. (3)

25 TIMES World's Champion Belle City Incubator

402,000 in use. Get the whole story told by the Championship Winners in my big free book, "Hatching Facts." With book comes full description of incubator and brooder—my 10-year money-back guarantee—low prices—full particulars—and my \$1300.00 Gold Offer. Learn how I paid one user \$150, another \$50, many from \$45 down. Write me today for Free Book. Jim Rohan, Pres.

BELLE CITY INCUBATOR CO.
Box 18, Racine, Wis.

"Successful" INCUBATORS AND BROODERS
BACKED by 21 years of successes and strongest guaranty ever written. Poultry lessons free to every buyer. Booklet "How to Raise 48 Out of 50 Chicks"—10c. Catalog free. Make green egg-making feed for 16c per bushel in "Successful" Grain Sprouters. Write today.
DES MOINES INCUBATOR CO., 83 Second St., Des Moines, Ia.

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

Tells why chicks die
E. J. Reefer, the poultry expert, 5631 Farmer Bldg., Kansas City, Mo., is giving away free a valuable book entitled, "White Diarrhoea and How to Cure It." This book contains scientific facts on white diarrhoea and tells how to prepare a simple home solution that cures this terrible disease over night and actually raises 98 per cent of every hatch. All poultry raisers should certainly write Mr. Reefer for one of these valuable FREE books.

If on the market for pure-bred stock, read KANSAS FARMER live stock advertisements. You will find what you want.



Packing Eggs for Hatchings

When eggs are to be sent away for hatching purposes, they should be packed in a different manner from eggs that are shipped for commercial purposes. The man who buys pure-bred eggs pays a good price for them, and that price obligates the man who sells them to pack them so that they may reach the buyer in a hatchable condition. Packing such eggs as he would market eggs is insufficient.

There are almost as many ways of packing eggs as there are men who pack them. Some pack them in bran, some in cut straw, some in oats, some in hay, some in paper, some in excelsior and some in patent egg-carriers. As long as these different methods do not conflict with the main proposition, of having the eggs reach the purchaser in a hatchable condition, there is no harm done. But if they do, then a new method of packing should be inaugurated. We have packed eggs for hatching purposes for more than twenty years with uniformly good results, and the beauty of it is, that it is simple and inexpensive. For one sitting of fifteen eggs we take a common market basket, called one peck in capacity. We line the bottom of the basket with excelsior, then take a handful of the same material and wrap it around the egg, making a tight wad of it, about the size of a large orange. We do this with all fifteen of the eggs, then pack the wads tightly together in the basket. We pack some excelsior on the sides and ends of the basket so as to keep the wads from being shaken around, and finish off by putting a layer of excelsior on top of the wads. Then we sew muslin tightly over all and label and address them. For three sittings of eggs we use a half-bushel basket, and proceed in the same manner as the one sitting. We have had people ask us what excelsior was. For fear some of our readers may not know, we would state that it is fine shavings of wood, and generally used in packing furniture. Most furniture stores have plenty of it on hand, but it can always be bought by the bale. It does not pay to scrimp on excelsior. Since the parcel post system has gone into effect, we have shipped many eggs for hatching that way, but we use more excelsior when we ship by mail than when we ship by express. But one can afford to put plenty of packing around the eggs when shipping by mail, for the postage is not half the expense of expressage. Packed in this manner, the eggs invariably reach their destination in good condition, and we have shipped them to the Atlantic and to the Pacific coasts.

In cold weather we wrap a piece of paper around the egg before wrapping it in excelsior, but one has to be careful while wrapping the egg in paper, for one is apt to squeeze too hard and crack the egg without knowing it, especially if the paper is thick and stiff. Tissue paper would be the kind to use for this purpose. The addition of paper to the excelsior is to guard against chilliness en route; after the season fairly opens, we discard the paper. Although scientists tell us that ill-shaped and mal-formed eggs will hatch as well as correctly shaped ones, we would advise not to ship any but well-formed ones, and to have them as uniform in color as possible. While uniformity is almost impossible with eggs from some breeds, get them as uniform as you can; for many buyers, especially beginners in the business have an idea that if the eggs are not uniform in color, that they are not pure-bred eggs. A satisfied customer is a pleased customer, and is apt to continue trading with the one that pleases him, therefore it is to the interest of all breeders to try and satisfy their customers.

If you want lots of eggs this winter,

Don't forget to give your hens some animal food;

Don't forget to give your hens some sprouted oats;

Don't forget to give your hens grit and charcoal;

Don't forget to give your hens plenty of pure water;

Don't forget to give your hens all the grain they will eat.

Don't forget that your hens need a warm house to lay in;

Don't forget to keep this house clean and sanitary.

If you do not forget these things, neither will your hens forget you at laying time.

"Well," you may say, "we knew all this before!" Possibly you did, but have you done all we asked you to do? If you have, we have not a word more to say. "But," you ask again, "why put it in this form, why make so many paragraphs when one would suffice?" Would one paragraph have been sufficient? We have written more than one on this subject. Have you heeded our advice? If you have not, we are going to write just as many paragraphs as we please and the boss will allow, on this subject, until you cry "Enough!" We imagine we hear some one say, "Enough!" "Thanks, we thought you would come to it at last! See what so many paragraphs did!"

A subscriber wishes to know if skim milk can be used as a substitute for meat. Less meat can be used when feeding milk, but it will not take its place altogether. In the winter time laying hens need considerable meat, and milk is not sufficiently concentrated to take its place. That is, the hens cannot drink enough milk to take the place of the meat or animal food they require for a great production of eggs. In the summer, when the hens can get all the bugs and insects they need, skim milk would take the place of the regular ration of meat. But at this time of the year, to do well, the laying hens must have some kind of animal food in addition to milk. Fresh, lean meat is the best of all egg-producing foods, but milk is also excellent both fresh and clabbered. It is meat in a diluted form. When plenty of milk is given, less meat will be required, but some should be fed every week to get good results in egg production.

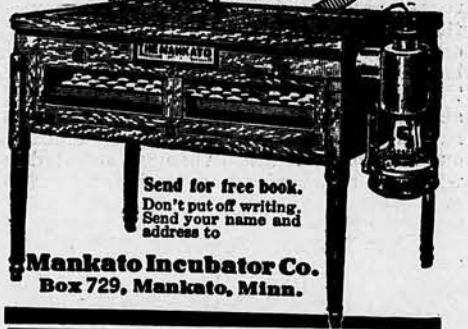
No matter how you may house your birds, see that they have plenty of litter to work in. This not only means that they will get exercise, but they will free themselves from dirt that would otherwise stay on the plumage, and give them an unattractive appearance. Even though you have sand or gravel at the bottom, and they wallow in it, they will clean their feathers in the straw or litter that is on top. Some of the best known poultry exhibitors know the advantage of deep litter. A few weeks before it is time to exhibit their birds, in place of washing them as others do, they place a foot or more of bright, clean straw in their pens. The birds will do the rest. Their legs and toes will be clean and smooth, and their feathers free from dirt, in short fit for exhibition purposes. Of course, they throw some fine grains or seeds in the straw which makes the fowls hustle to get it, and the hens thus do two things at the same time; feed themselves and keep themselves clean.

Do not be afraid of feeding your laying hens too much of the right kind of food. Take notice that we say the "laying hens," in distinction from those that are not laying. A hen that is laying needs more food than an unproductive one, and you may possibly get the latter too fat to lay. But after the hen once gets started to laying, she must have feed enough to meet the demands of her body and a surplus for egg production. A great many people feed just about enough to keep the hen alive, with nothing over towards the making of the egg. It does not pay to do this, for the little extra feed will be just what is required to make the egg, and the egg is what you are after. Please also note that we wrote, "the right kind of food," when we said you couldn't feed too much to the laying hen. You can feed too much corn or other kind of grain to a laying hen. She needs a variety of feed. Grains that are smaller than corn, so that she can scratch for them and get needed exercise. She can fill her crop with corn in a few minutes, and then stand around all day accumulating fat. Feed the laying hen the right kind of feed and she cannot eat more than is good for her.

Many farmers do not fully appreciate

\$7.25 Buys New Mankato Incubator

Send us your name and address. Let us tell you more about this wonderful offer. Bigger factory. Better material. Lower prices.
20 Years of Success
Mankato Incubators are made of best California redwood. Triple walls all around, lined with heavy asbestos. Heavy pure copper hot water heating system. Perfect regulator. Correct ventilation. Safety lamp. High nursery. Strong well-made egg tray. Tested thermometer and egg tester.



Send for free book. Don't put off writing. Send your name and address to
Mankato Incubator Co.
Box 729, Mankato, Minn.

Get Bigger Hatches

On Only One Gallon of Oil—One Filling of Tank to a Hatch!
RAYO INCUBATOR
Makes experts of beginners—gives average of 20 more chicks to the hatch. That's because center heater gives evenest heat, special automatic devices produce constant supply of fresh, warmed, moist air. Lamp flame regulator gives exact blaze needed to keep 103 degrees—automatically. Will hatch as many as 100 eggs all others use 4 to 7. Large oil tank holds enough for an entire hatch—no daily refilling necessary. Glass top lets you see inside all the time. Cuts out stooping—eliminates guessing. Just lift lid to air and turn eggs—no handling of egg tray necessary. Send to money-making book, "Turning Eggs into Chickens Into Dollars," also free Rayo Patent Hatching Chart and offer of \$1.50 hygrometer FREE. Post card brings all. Write us.
RAYO INC. CO., U. S. Sta. 2554 Omaha, Neb.

60 BREEDS Valuable Poultry Book
22nd Annual Edition. Fine pure bred chickens, ducks, geese and turkeys—Northern raised, hardy, beautiful. Fowls, Eggs and Incubators, low prices. America's greatest poultry farm. Write today for Free Book.
G. F. NEUBERT CO., Box 815 Mankato, Minn.

White Plymouth Rocks

Hard to beat as all-purpose fowls. Excellent layers, with yellow legs and yellow skin. Eggs, \$2 per 15, \$5 per 45, express or postage prepaid. Have bred them exclusively for twenty-four years.
THOMAS OWEN, Route 7, TOPEKA, KAN.

SITUATION WANTED.

YOUNG MARRIED MAN WANTS POSITION on farm, house furnished, commence any time between now and March 1. Carl Miller, Garnett, Kan.

MAN WITH SMALL FAMILY WANTS steady work on farm where house, garden and cow is furnished. G. F. Dukes, Sedgwick, Kan.

MARRIED MAN WITH FAMILY WANTS steady employment on farm. E. W. Perige, New Cambria, Kan.

FARM HAND WANTS WORK ON FARM, all summer work preferred. Can give number one references. Address Stuard Dewalt, Villet, Kan.

POSITION WANTED AS MANAGER OR foreman on stock farm. Experienced, best references, no bad habits, single. Salary, not location, object. A. L. Pope, Bialock, Ala.

A Modern Topeka Home

TO SELL AT A BARGAIN
Inside location, on a good street, near school. Seven-room house, all modern conveniences. Good barn. This proposition will interest anyone wanting a choice location and a good home. Priced to sell. No trades. Address

BOX 5, Care KANSAS FARMER

Advertisers in Kansas Farmer are reliable and sell dependable merchandise. Tell them where you saw their ad.

the value of poultry on the farm. They think they are very small business, and that they eat more than what they produce; but this is a mistake, because the farmer doesn't keep an account of what the hens eat or what they produce. He forgets that they provide many a savory meal for himself and family that takes the place of salt pork or corned beef. He forgets the eggs his wife takes to the grocery store and exchanges for groceries, which would otherwise demand some of his hard earned cash. He forgets that when visitors come, that the only stand-by his wife has to get a square meal, is to go out and kill a chicken or two, which satisfies everybody. Another thing he forgets is, that the hen gets most of her own living by picking it up here and there on the farm. She goes around and picks a grain here and a grain there, that would otherwise prove a complete waste, for nothing else can gather the scattered grains on a farm like a flock of fowls. On many farms the hens get their own living entirely by picking up waste material and killing noxious bugs and insects. The hen should be credited with all that she gathers up as pure profit, for otherwise it could never be utilized.

While attending the poultry shows this season, we have noticed quite a number of sales to beginners in the poultry business. To these we wish to offer a little advice. Don't think for a moment, that because you have paid a big price for a pen of birds, that all you

have got to do is to throw them a little grain occasionally and they will continue to shell out eggs without proper care and attention. Do not play with poultry work. Since you are interested enough to buy a few good birds, go at the work, as if you meant to make a business of it. So many people start in with poultry keeping, only to let it dwindle out, because they have not given it the proper time and attention to make it pay. They are enthusiasts for a time, and then later on, when their enthusiasm wanes, the poor chickens are neglected, and when the neglect comes the egg production stops and the fowls are considered of no value. There is one thing that is positive in poultry keeping, and that is that without proper care a flock of fowls will amount to almost nothing. The care of the birds depends on you, and if you fail in that respect, don't lay it to the breed, or strain or anything else, but just lay it at your own door. Chickens must never be neglected; if they are, from that moment they will begin to deteriorate. Constant neglect will make a scrub flock out of the best chickens money can buy. No matter how fine a lot of birds you may have; neglect them and they will soon look like a bunch of barnyard fowls. Since you have started in with a lot of good birds, make it your business to take proper care of them. Feed them the right kinds of food and house them properly, and they will pay you well and prove a source of profit as well as give you some needed recreation.

GENERAL FARM ITEMS

Rightly Disappointed Feeder.

A cattle feeder from a Central Kansas county, on his return from market recently, was profanely complaining of marketing conditions and prices. It appeared that he had lost considerable money on a shipment of cattle he had just made. In the course of a conversation which ensued relative to the feeding of these cattle, he was asked what he fed. His answer was "corn, and for roughage prairie hay." This seemed rather surprising, and he was asked why he did not feed alfalfa. He stated that alfalfa was worthless for full feeding cattle and that he would not consider feeding it. Silage was suggested to him; "worse than alfalfa," was his comment on silage as a cattle feed.

It seems almost incomprehensible that a cattleman in this day and age should not appreciate the value of alfalfa. The time has long since passed when prairie hay can be profitably fed to cattle of any kind. The value of silage is, perhaps, not so generally recognized, but the most progressive growers and feeders of cattle have come to value silage most highly as a means of reducing the cost of production and marketing the farm-grown feeds to the best advantage. This feeder could not expect anything else but disappointment in following such antiquated methods in feeding cattle for market.

Variations in Cholera Virulence.

Many have observed that hog cholera does not always act the same. In some instances, the animals die very soon after becoming sick, and in other cases they live for a week or two. In still others, the disease seems to be chronic and the animals linger along for several weeks or even months. Investigators have found that when the infection from a virulent case in which the animals die quickly, is transmitted to mature hogs, these new cases seem to have it in milder form and live longer after becoming infected. When transmitted again to other mature hogs the disease seems to again lessen in severity. If this process should continue it would appear that the disease would eventually die out. It has been found, however, that when little pigs are infected from one of these mild outbreaks, they die quickly and the virus seems to acquire new vigor. When

the infection passes from the little pigs to mature hogs it starts another series of virulent cases.

These facts may explain some of the variations of the disease as it appears in different herds.

County Agent's Cholera Demonstration.

Many farmers do not even yet believe that hogs can be made immune to cholera. In order to prove this absolutely to the farmers of Leavenworth County, County Agent Ross made a public demonstration last fall. In his talk to the stock breeders' meeting, he told the results of this demonstration. He was assisted by Dr. C. W. Hobbs of the Kansas Agricultural College.

Four healthy shoats were donated by one of the County Farm Bureau members. These shoats were placed in a pen in the public square in Leavenworth, where farmers from all parts of the county gather to sell various kinds of produce. All four of the pigs were given equal doses of virus. Two of them were immediately given the proper dose of serum. Four days later the third pig was given the dose of serum. While he showed no outward indications of disease, his temperature had risen to 100. The fourth pig received no serum. Dr. Hobbs stated at the beginning of the demonstration, that the first two pigs would not miss a meal; that the third pig would get sick but would probably recover; and that the fourth pig would die. The results were exactly as predicted. On the third day the third pig rallied and finally recovered. The fourth pig died on twenty-second day. This closed the demonstration. It was watched with a great deal of interest and many who had previously doubted the efficiency of serum were convinced of its value. The pigs were put up at auction and sold for prices slightly above the market.

A few dollars' worth of paint will add many dollars to the actual value of the farm buildings, besides the great satisfaction of improving the appearance of the farmstead so markedly.

The good roads booster never quits. He talks good roads until he gets them, and then he keeps reminding everybody what a blessing they are.

HIDES and FURS PRICES HIGHER TRAPPING WORTH WHILE

We will pay you the highest prices on your hides and furs. We build our business by giving every man a square deal. We charge no commission, we send you a check the same day shipment is received. We treat you right. The house that has been successful for fifty years could not stand if it did not satisfy its shippers. Try us and see. Write for full list and tags.

JAS C. SMITH HIDE CO.

Third and Kansas Avenue, TOPEKA, KANSAS.
St. Joseph, Mo. Wichita, Kan. Grand Island, Neb.



Joplin, Mo. Dallas, Texas.

HELP WANTED

Good pay and permanent business connection for one man in each county in Kansas to look after established business. Twenty-six dollars or better per week at start, working small towns and rural routes. Good chance for rapid advancement. Farmers and farmers' sons with a little spare time especially wanted. Previous experience not necessary. Write at once.

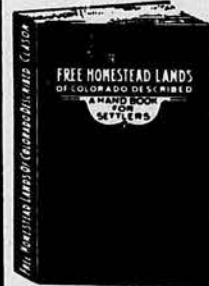
J. H. YETTER, SALES MANAGER, 625 JACKSON ST., TOPEKA, KAN.

FREE GOVERNMENT LAND

Endorsed by Professor Cottrell, Agricultural Expert of the Rock Island System.

Professor Cottrell says: "A conservative publication of unquestionable value to all seeking the free homestead lands. I am especially pleased with the careful appraisal of the cash value of these raw lands. A copy occupies a prominent place in the library which accompanies me on my travels over the Rock Island System."

Every citizen has a homestead right and is entitled to file on 160 or 320 acres. Thousands and thousands of acres of the most valuable lands in Kansas were secured in this way a few years ago. At this time eighteen million acres are still vacant in the state of Colorado. Why not use your privilege as an American citizen and secure a valuable tract of land free in Colorado?



This Book Describes The Lands

A new book, "Free Homestead Lands of Colorado Described," has just been published, and KANSAS FARMER has made arrangements to distribute copies of this book in connection with yearly subscriptions to KANSAS FARMER, new or renewal.

The character of this land varies in different localities. Considerable of it is especially good, other portions only of fair quality, and some is poor, broken, and of little value. It is most important for a settler to locate in the right district and at the least possible expense. With this end in view, this book has been published, classifying the lands open for entry and giving accurate detailed description and location of the land in every township containing vacant land in Colorado, describing the surface, soil, timber, distance from railroad, etc.

This is the same book for which many have been glad to pay \$2. However, for a limited time we will send a copy of this book and a year's subscription to KANSAS FARMER to anyone sending only \$1. Our regular subscription price, and 10 cents extra for mailing—\$1.10 in all. The book is complete—320 pages, same as the higher-priced book, only this is in a strong paper binding instead of cloth. Send all orders to

KANSAS FARMER, TOPEKA, KANSAS

GREATEST FARM BOOK BARGAIN

Every reader of Kansas Farmer can now obtain that widely read 500-page book, "Making the Farm Pay," with renewal or new subscription.

You can have a copy of this great farm book, "MAKING THE FARM PAY," a book that thousands of farmers, stockmen, gardeners, dairymen and other producers have bought and say it is the best book they own.

A VOLUME OF OVER 500 PAGES. The book was written by experts on special subjects—men known all over the United States and in foreign countries for the special study, trials and investigations made by them along particular lines, making the book a valuable compendium of farm knowledge. "MAKING THE FARM PAY" gives you page after page of valuable information about treating diseases in stock, selecting and feeding farm animals for profit, crop culture, making poultry pay, dry farming methods, detection and eradication of insects, besides chapters on irrigation, soil fertility, cooking to avoid waste, horticulture, gardening, and practically every subject that is of interest and value to the farmer.

This is the same book that was originally sold for \$2.50 per copy in cloth binding. The volume we offer you is just the same as the original \$2.50 volume, nothing omitted, excepting that the volume we offer you is bound in neat paper binding. If you want the cloth binding, send 50 cents extra and state that you want the cloth-bound book. The pages are 6 1/2 inches wide and 8 1/2 inches long and the book weighs NEARLY TWO POUNDS. It includes 200 fine drawings and half-tone pictures with feeding chart IN COLORS. The publishers have recently completed a large edition from the original plates, thereby reducing the cost which we are now passing on to you. This reduction, together with recent reductions in postage rates, have all combined to bring the cost of this book down to a figure WHERE EVERYBODY CAN AFFORD IT. You cannot afford to let your stock or fowls die of curable diseases when a better knowledge of how to detect and treat these diseases could easily prevent them. Throughout the text of this great 500-page book the reader is given the results of scientific research that cost thousands of dollars, with successful experience, the authors using only such expressions as everybody can understand. Any farmer with ambition to make the most of his labor and realize the greatest returns from his investment will find in this volume a priceless guide for every-day reference.

This is one of the best book bargains ever offered and is sure to please you. We will refund your money cheerfully if you are not entirely satisfied.

J. A. Borman

HOW TO GET THIS GREAT BOOK.—If you will send only \$1.05, we will enter or renew your subscription to KANSAS FARMER for one year and send the book, "MAKING THE FARM PAY," postpaid. Fill out the blank, enclose check, money order or stamps for \$1.05 and send at our risk.

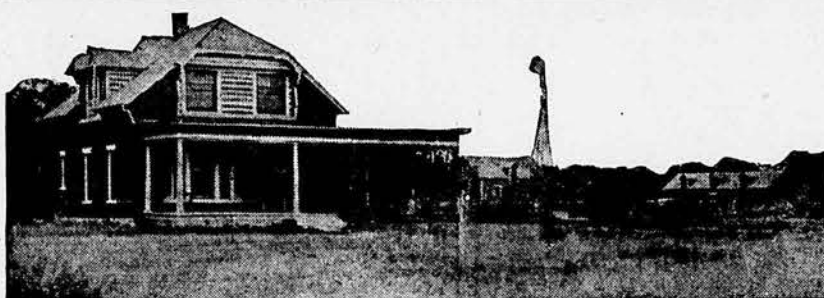
Dated.....

KANSAS FARMER, 625 Jackson Street, Topeka, Kansas.

Gentlemen.—I enclose herewith \$1.05, for which please enter or renew my subscription to KANSAS FARMER for one year, and send me the 500-page book, "MAKING THE FARM PAY," postpaid as per your offer.

My Name..... R. F. D.....

Post Office..... State.....



ONE OF THE MANY VERY LIVABLE PLACES IN WESTERN KANSAS.
—THE LAY-OUT OF ANDREW DYATT, NEAR ALMENA, KANSAS

New Kherson Oats

Ripen Earlier—Stiffer Straw

A wonderful producer, and just the oat for the Middle West, where so much grain falls down every year. The New Kherson is rust-proof and carries a heavy head of oats. A bigger yielder per acre than we have ever seen. Get our prices on all field seeds before buying—they are bred to fit this Western climate. Alfalfa, Clovers and Grass Seeds. Also Garden and Flower Seeds, Fruit and Ornamental Trees, Shrubs, etc. Ask us to send our Free Seed and Tree Book.

GERMAN NURSERIES AND SEED HOUSE
50 Court St., Des Moines, Iowa

GOOD SEEDS

**GOOD AS CAN BE GROWN
Prices Below All Others**

I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.

Big Catalog FREE

Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.

R. H. SHUMWAY, Rockford, Ill.

Buy Trees At Wholesale

and Save Agents' and Dealers' Profits.

Apple trees \$5.00 per 100; Peach \$6.00 per 100; Cherries \$14.00 per 100; Concord Grapes \$2.00 per 100; Dunlap Strawberries \$2.25 per 1000; Everbearing Strawberries \$3.50 per 100. Everything in fruit trees. **Free Catalog** Plants and Ornamentals. Send for our **Free Catalog**

HOLSINGER BROTHERS NURSERY,
BOX 109, ROSEDALE, KANSAS.

FARM LANDS FOR SALE

TWO BIG LAND BARGAINS

160-Acre Well Improved Farm—80 acres cultivated, balance pasture and meadow; 1 1/2 miles good high school town; good soil; big snap. Worth \$75. Priced at \$45 per acre for quick sale.

210-Acre Alfalfa Creek Bottom Farm—60 acres now in alfalfa. Some fine walnut timber. 160 acres as good soil as there is in Kansas. Price only \$60 per acre. Come at once and see these farms.

M. T. SPONG - FREDONIA, KANSAS

Improved 960 Acre Stock and Grain Ranch For Only \$10.00 an Acre

Entire ranch smooth and tillable. Plenty of water, school house on the ranch, with adjacent range; handles 200 head of cattle. Only 3 1/2 miles to railroad shipping point and 5 1/2 miles to county seat.

CARTER REALTY & ABSTRACT CO.
Leoti, Kansas.

FOR SALE---BY OWNER

633-Acre Farm in Mayes County, Okla., at \$25 per acre. Some creek bottom, large orchard. Will sell on easy terms. Write for full particulars.

L. E. Hohman, 20 Neb. Bldg., Tulsa, Okla.

Virginia Farms and Homes

Free Catalogue of Splendid Bargains.

R. B. CHAFFIN & CO., Inc., Richmond, Va.

For Immediate Sale I offer my east 1/4 of the S. W. 1/4 and the S. W. 1/4 of the S. W. quarter of Section 13, Township 16, Range 24, Miami Co., Kan., 120 acres partly improved small buildings for \$4,000 spot cash.

E. W. Jones, Owner, Crookston, Minn.

FOR RENT OR SALE

160 Acres in Lincoln County, Okla., 3 1/2 miles from Chandler, the county seat. 75 acres of fine bottom land, suitable for alfalfa, corn, or any other crop. House not very good but would repair for good party. Two or three teams would be needed to properly handle the farm. Address

WILLARD P. HOLMES
New England Building Kansas City, Mo.

FOR SALE

320 ACRES—200 tillable, 100 a. cult., bal. pasture. Close to city, this county. \$13.00 per acre. Terms.

SOUTHERN REALTY CO., McAlester, Okla.

FOR SALE—CHOICE UNIMPROVED QUARTER

Sheet water, Lane Co., 3 miles Grigsby. \$15 per acre. \$400 cash, balance easy.

P. O. BOX 83, - SCOTT CITY, KANSAS

WHEAT!

Is the great Kansas crop. New land is the land to make crop records. We have thousands of acres that have never been broken, and it is the surest land in the state for wheat, when properly prepared. We want agents everywhere. Write for list of bargains and terms to agents.

Niquette & Bosworth, Garden City, Kansas

Dried Fruit.

When properly dried and cooked, dried fruits are wholesome and furnish variety in the diet. The fruit should be thoroughly cleaned and soaked over night. In the morning put the fruit on the stove in the water in which it was soaked, allowing it to cook slowly and a long time. Very little sugar will be required if cooked in this way. Prunes require no sugar, but a little lemon juice added to them will improve the flavor.

When sugar is added to dried fruit it should be put in just a little while before removing from the fire.

Little Talks to Housekeepers

Helpful Hints Here for the Women Folks of the Farm

Thou canst make this life a Hell,
Or Jacob's-ladder up to Heaven.
Let not thy baptism in Life's wave
Make thee like him whom Homer sings—
A sleeper in a living grave.
Callous and hard to outward things:
But open all thy soul and sense
To every blessed influence
That from the heart of Nature springs.
—Lowell.

Before covering the kitchen table with oil-cloth first put on a layer of brown paper. It will prevent the oil-cloth from cracking and make it wear twice as long.

When beating eggs add a pinch of cream of tartar to them and they will not fall after they are whipped.

If your shoes have become wet do not put them by the fire to dry, but fill them with oats which will absorb the moisture and leave the shoes as soft and pliable as before they were wet. When wet the oats have a tendency to swell and so prevent the shoes from shrinking. Dry the oats and they are good to use again.

If your kitchen is not arranged in the most convenient manner as regards the location of the different articles of furniture which your work requires, a kitchen

table fitted with casters will do much to save time and energy. For instance if your cupboard is across the room from your sink roll the table to the sink and as the dishes are washed and dried pile them on the table with whatever else is to go to the same part of the room and when they are all ready roll the table to the cupboard. In this way many trips across the room are saved. There are many ways in which this same plan may be worked out to the benefit of the busy housekeeper.

All Patterns 10 Cents Each.

As owing to the large number of departments, it is not possible for us to illustrate the very many new designs that come out each month, we have made arrangements to supply our readers with a quarterly fashion catalogue illustrating nearly 400 practical styles for ladies, misses and children, illustrating garments all of which can be very easily made at home. We will send the latest issue of this quarterly fashion book to any address in the United States, postage prepaid and safe delivery guaranteed, upon receipt of 10 cents.

FASHION DEPARTMENT—ALL PATTERNS TEN CENTS

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



No. 7422—Child's Dress: Cut in sizes 2, 4 and 6 years. This pretty frock has the fashionable box plait, one at each side of the front and also of the back. The closing is placed in the back. The high neck is trimmed with a small flat collar and the long sleeves end in a cuff. No. 7420—Ladies' Shirtwaist: Cut in sizes 34 to 44 inches bust measure. This plain tailored model has no ornament except a small tab on the bosom through which the neck tie can be passed. At the open neck is a collar of moderate size and the long sleeves are gathered into a cuff with turn-back finish. No. 7401—Child's Kimono: Cut in sizes 4, 6, 8, 10, 12 and 14 years. This garment is all but indispensable in winter. It can be made of flannel, cashmere, challie or other warm woolen goods. The model has sleeves and body in one with or without a seam down the center of the back. No. 7415—Ladies' Redingote Dress: Cut in sizes 34 to 42 inches waist measure. This most novel of designs has a waist which is full and trimmed with a wide collar at the neck, the sleeves long and shaped to the arm, with cuff finish. To this is joined a two-gore underskirt and over both blouse and skirt is worn the redingote. No. 7427—Ladies' Skirt: Cut in sizes 22 to 32 inches waist measure. This smart two-gore skirt has front and yokes in one, the material at the lower part of the sides being cut away a trifle to allow the insertion of a soft plaited side gore. No. 7394—Ladies' Yoke Nightgown: Cut in sizes 36 to 46 inches bust measure. This simple design is familiar to all women. The yoke is straight across the shoulders in both front and back, the lower portion full and gathered at the top. The opening is in front, the neck high with small bat collar, and the sleeves long with a band cuff.

Scarified Sweet CLOVER

Sweet Clover seed has a very hard shell. Scarifying scratches the shell, making it easily burst, and increasing germination 10 to 40 per cent. New crop, Kansas grown, cleaned and thoroughly tested.

Catalog and Samples FREE

Also Alsike, Red Clover, White and Crimson Clover and Alfalfa seed at lowest prices. Weekly Pink List free, gives prices of field seeds in quantities. Write today.

BARTELDES SEED CO.
907 Massachusetts St., Lawrence, Kansas.

WHITE SWEET \$5.40 CLOVER 5 Per Bu.

LARGEST MONEY-MAKER KNOWN—INVESTIGATE

The greatest forage plant that grows. Superior to all as a fertilizer. Equal to Alfalfa for hay. Excels for pasture. Builds up worn-out soil quickly and produces immense crops, worth from \$50 to \$125 per acre. Easy to start, grows everywhere, on all soils. Write today for our Big 100-page free catalog and circular about unbullied and scarified but sweet clover. We can save you money on best tested, guaranteed seed. Sample free.

A. A. BERRY SEED CO., BOX 967 CLARINDA, IOWA

Hill's Evergreens Grow

Best for windbreaks and hedges. Protect crops and stock. Keep house and barn warmer—save fuel—save feed. Hill's evergreens are hardy, nursery-grown. Get Hill's free illustrated evergreen book and list of 50 Great Bargain Offers—from \$4.50 up per thousand. 55 years' experience. World's largest grower. Write **HILL NURSERY CO., Evergreen Box 2212 Dundee, Ill. Specialists.**

SEEDS

Best that grow. We sell direct to gardeners and farmers at wholesale. Big beautiful catalogue free. Write today.

ARCHIAS' SEED STORE, Box 17, Sedalia, Mo.

FISH IN BRINE.

Split Rock Herring freshly caught and cleaned, with heads off, and packed with just enough salt to give them that dandy taste, and so they will keep in good condition until you use them. (Some people call them Baby Trout). You can enjoy these good fish this winter, and also cut your meat bills in two. We guarantee the fish to reach you safely. 160 lb. keg gross weight. **FREE FREIGHT CHARGES PREPAID TO YOUR TOWN, \$5.75.** Send your order now.

SCANDIA FISH CO., Dock 6 Duluth, Minn.

For \$1 I Will Send You 8 2 Yr. Apple Pear or Peach

or 5 two year Cherry trees, or 75 Raspberry, Blackberry or Dewberry or 20 Grape, Gooseberry, Currant or Rhubarb or 100 Asparagus or 200 Spring bearing or 50 Progressive fall bearing Strawberry plants or eight 2 year Rose bushes or 25 transplanted Red Cedar. Freight paid on \$1 order.

Catalog free. **Manhattan Nursery, Manhattan, Kan.**

Free for Testing

A pair of tested EVERBEARING STRAWBERRY PLANTS FREE if you will report as to your success with them. Will bear loads of big, red, berries from June to November. We have counted 450 berries, blossoms and buds on a single plant. A postal will bring the plants, also enough seed of the new CEREAL FERTILIZER to plant a rod square. Send 10c for mailing expense or not, as you please. Write today and get acquainted with **THE GARDEN NURSERY COMPANY** Box 765 - Chicago, Iowa.

SEED CORN

From the Farmer Seed Corn Grower That made 100 bushels per acre. Best that grows. Catalog free. It tells all.

JOHN D. ZILLER, HIAWATHA, KANSAS

New Feather Beds only \$5.40

6-lb. Pillows \$1.00 per pair. New, Clean, Odorless, Sanitary and Dustless Feather Beds. Best Ticking. Satisfaction guaranteed. Write for catalogue and our wonderful FREE OFFER.

SOUTHERN FEATHER & PILLOW CO., Dept. 1136 GREENSBORO, N. C.

A New Crochet Book Edgings and Insertions

A special selection of pretty patterns. Large illustrations with complete instructions. Over 50 new designs applied to Handkerchiefs, Towels, Yokes, Curtains, etc.

Every page useful. Price, postpaid, 10c. Pattern Dept.

KANSAS FARMER
Topeka, Kan.

SCHOOLS AND COLLEGES

LEARN TELEGRAPHY

Students Earn Board while Learning A practical school with railroad wires. Owned and operated by A. T. & S. F. Ry. Earn from \$55 to \$165 per month. Write for catalogue. Santa Fe Telegraph School Desk F

505 Kansas Ave., Topeka, Kan.

—OTTAWA—

Business College

OTTAWA, KANS. CATALOG FREE

WANTED, Men to learn the Barber Trade. Lowest tuition ever offered; tools furnished while learning.

TOPEKA SANITARY BARBER COLLEGE
327 Kansas Ave., Topeka.

FINLAY ENGINEERING COLLEGE
Kansas City, Mo. Farmers, mechanics, steam, electric, gas courses. Three months, \$35. Write for information.

When writing to KANSAS FARMER live stock advertisers, please mention this paper.

Home-Building Principles Important.

There is no subject—barring “preparedness” and “rural credits”—that is receiving more thoughtful consideration by those who understand its importance, than that of training girls to be homemakers. Some will question this statement in the face of all the woman suffrage talk of the last few years. But the fact remains that for a good many years to come, at least, the household will be woman's realm and where she will wield her greatest influence for the improvement of conditions generally.

It is because of this belief that those in charge of our home economics departments keep ever before them the importance of instilling in the minds of young women that their duties as housekeepers are more than merely cooking three meals a day and keeping the house reasonably clean. If this were all the wife and mother had to look forward to, her life would indeed be uninteresting—as far too many women's lives are. On the other hand, a lack of interest in these necessities is many times responsible for a breach between two once happy lives as they embarked together on life's journey.

It is just as necessary to study the

a preacher in a little Kansas community. Corn, pig, sewing, and canning clubs have been organized in many places, but we had not known before of a flower club. The object of the club was to see which child could plant, tend, and pick from his own garden the largest number of bouquets and carry these to the sick or to the church during the season. The boy who stood at the head of the list had distributed 174 bouquets, and the little girl who stood next to the champion had donated 110 bunches of bright, cheering flowers.

Can anyone question the value of such service? Will it not develop a spirit of helpfulness which is necessary in the well rounded life?

Letter to Grangers.

We are pleased to publish the following letter to grangers, from Mrs. Mabel Pomeroy, chaplain, Kansas State Grange: “I know as the new year opens we are all planning better things for our grange and our community. We want things to be better in 1916 than they were in 1915, and the way to make them so is to get busy and work harder for our grange than we did last year.

“The grange can be made a source of

FIRST CAPITOL OF KANSAS

NEW efforts may be made to preserve for posterity the first capitol of Kansas, according to William E. Connelley, secretary of the Kansas State Historical Society. A number of persons, including State Senator J. W. Howe, of Abilene, have complained that the building located near Fort Riley is gradually falling to pieces for the want of care.

In the old stone building, which is now minus roof, windows, floors and doors, the first legislature of the Territory of Kansas held its first session on July 2, 1855. Built at the “head of navigation” of the Kansas River, the building first was used by the town company as a warehouse. Reports to Mr. Connelley indicate that the river has eaten its way up to the site of the building until today it threatens to engulf it.

The building is also historical as the home of the “bogus legislature” of Kansas. This legislature was said to have been elected by the votes of the Missourians who invaded Kansas. Its first acts were to unseat all but one of the free state men and to adopt in their entirety the laws of Missouri as those of Kansas. Kansas free state men never recognized the acts of this legislature, although it is said that the territorial governors attempted to enforce them.

Several times attempts have been made to preserve the building, but little ever came of them. It has been suggested now, however, that the building be repaired and converted into a museum where relics of early Kansas can be gathered.—Topeka State Journal.

underlying principles of home-making, as it is to master the fundamental principles of any business. It is not the application of the particular knowledge gained in the home economics classes, but the ability acquired through training, to adapt one's self to surroundings and do efficiently what is undertaken. We would be the last to under-estimate the value of the mother's training, but there are many cases where girls find themselves in charge of a house where things cannot be done as they were at home, because of a much smaller income, and they are incapable of mastering the situation because of lack of training which would help them fit into surroundings. Sad is the day when the young wife finds she cannot stretch the husband's income to the point of covering the necessities of life.

The girl who is trained for the home life will not only be more capable in managing the business affairs of the household, but will possess many resources upon which to draw in caring for the members of her family and in directing their attention to those things which are most important and most useful.

Oddity in Boys' and Girls' Clubs.

Not long ago we heard Otis E. Hall, in charge of boys' and girls' club work at the Kansas Agricultural College, tell of a flower club which was organized by

much good to the community and to the individual members of that community, if all members will attend the meetings and take some part when requested to do so. The only way we can improve mentally is by using the small talents God has given us, and what better way can we find to use them, than by attending our grange and taking some part in it? It is a law of Nature that nothing can stand still, and if we do not use our talents they surely will deteriorate. Don't allow yourselves to be relegated to the mental junk pile.

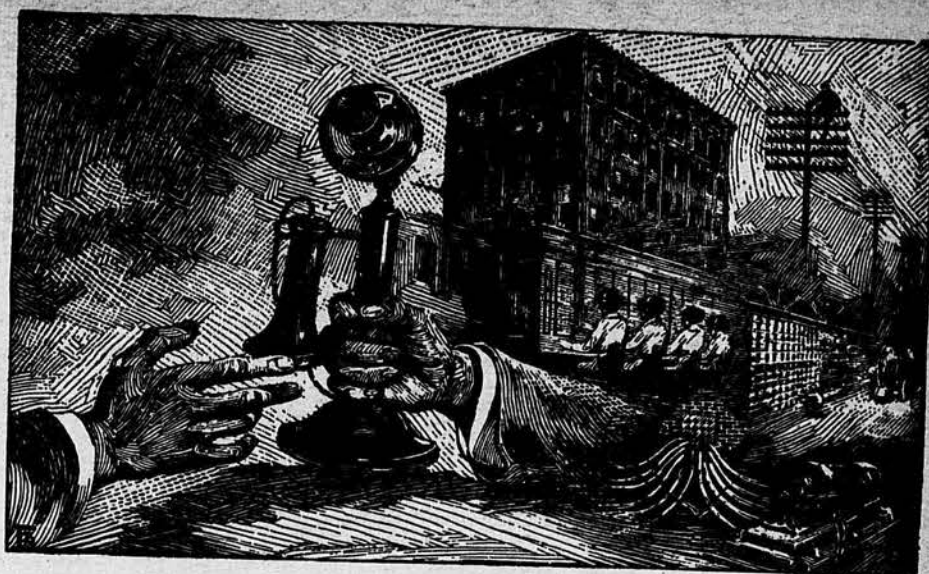
“Whatever we put into an organization—of our time or of our talent—just that much will we get out of it. I will quote a little poem which explains what I mean better than I can express it:

“There are loyal hearts, there are spirits brave,
There are souls that are pure and true;
Then give to the world the best you have,
And the best will come back to you.

“Give love, and love to your heart will flow,
A strength in your utmost need;
Have faith, and a score of hearts will show
Their faith in your word and deed.

“For life is the mirror of king and slave,
‘Tis just what you are and do;
Then give to the world the best you have
And the best will come back to you.”

Agent—I would like to show you something that a child can manage. Distracted Parent—We don't need it; but have you anything that can manage a child?

**Anticipating Telephone Needs**

When a new subscriber is handed his telephone, there is given over to his use a share in the pole lines, underground conduits and cables, switchboards, exchange buildings, and in every other part of the complex mechanism of the telephone plant.

It is obvious that this equipment could not be installed for each new connection. It would mean constantly rebuilding the plant, with enormous expense and delay. Therefore, practically everything but the telephone instrument must be in place at the time service is demanded.

Consider what this involves. The telephone company must forecast the needs of the public. It must calculate increases in population in city and country. It must figure

the growth of business districts. It must estimate the number of possible telephone users and their approximate location everywhere.

The plant must be so designed that it may be added to in order to meet the estimated requirements of five, ten and even twenty years. And these additions must be ready in advance of the demand for them—as far in advance as it is economical to make them.

Thus, by constantly planning for the future and making expenditures for far-ahead requirements when they can be most advantageously made, the Bell System conserves the economic interest of the whole country while furnishing a telephone service which in its perfection is the model for all the world.



**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

FOR 50 CENTS Get a Platinum Plate Metal Polisher & Sterilizer

Very quickly cleans silverware and metal surfaces of every kind. No rubbing—no powder—no paste. Immerse the platinum plates in the dish water and your silverware is always clean and sterilized. Send 50 cents, check, money order or stamps.

CHAS. CLARKE, 334 Kansas Ave., Topeka, Kans.

BARGAINS IN WHEAT LAND

POSITIVELY NO TRADES CONSIDERED.

This land has proven its ability to make 20 per cent net each year on the value asked. It is offered for sale, as the owner is ready to retire.

FARM NO. 1.

Harper County, Kansas, containing 160 acres; sandy loam with clay mixture; 90 acres in wheat, 20 acres ready for spring crops, 50 acres pasture. All fenced and cross-fenced. Running water, two wells. Four-room house, cave, etc. Stable for eight horses, cattle sheds and other out-buildings. Cash price, \$30 an acre.

FARM NO. 3.

160 Acres, 110 acres broke, 60 acres in wheat, 50 acres ready for spring crop; 50 acres mow land on creek bottom; all fenced, meadow cross-fenced; running water, well, granary and stock sheds; good hard wheat lands. \$25 per acre, cash.

FARM NO. 2.

480 Acres, Harper County, Kansas. 160 acres broke, 100 acres in wheat, 60 acres ready for spring crop, all good hard wheat land. \$25 an acre, cash.

FARM NO. 4.

74 Acres in Sedgwick County, Kansas. All broke, all fine alfalfa land; 6 acres in alfalfa, balance in wheat, was alfalfa; fenced; good house, well, barn for four horses, and usual outbuildings. Near station; 10 miles from Wichita. \$100 an acre. Balance of quarter in alfalfa and can be had for \$115 an acre.

WRITE TO H. N. HOVEY, CARE KANSAS FARMER, TOPEKA, KANSAS.

CORN, ALFALFA AND LIVE STOCK

THE PROFIT-PRODUCING COMBINATION.

Do you want a nicely improved quarter section, highly productive, two miles from Marysville, the county seat of the banner corn county in Kansas? A bargain for someone at \$16,000, with favorable terms. For particulars address

X. Care, Kansas Farmer

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 300,000 readers for 4 cents a word per week. No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

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

HELP WANTED.

WANTED—BOYS AND GIRLS TO DIS-tribute circulars. Our plan makes it easy money for you. We pay cash. Weldon Valley Advertising Co., Box 135, Weldon, Colo.

MOTORMEN-CONDUCTORS, \$80 MONTH-ly. Interurbans everywhere. Experience unnecessary. Qualify now. State age. Booklet free. Electric Dept., 807 Syndicate Trust, St. Louis, Mo.

LADY OR GENTLEMAN TO TRAVEL for old established firm. No canvassing. Staple line. Salary, \$18 weekly, pursuant to contract. Expenses advanced. Address G. M. Nichols, Pepper Bldg., Philadelphia, Pa.

DAIRYMAN WANTED — FARM NEAR Emporia, completely equipped for dairying. Good opportunity for young man who knows cows and hogs. Write me for terms. J. H. Glosfelder, Oshkosh, Wis.

MEN AND WOMEN WANTED EVERY-where. Government jobs, \$70 month. Short hours. Vacation. Big chance now for farmers. Write immediately for list of positions now obtainable. Franklin Institute, Dept. F-82, Rochester, N. Y.

REAL ESTATE.

120 ACRES, CLOUD COUNTY, IM-proved, \$5,000. 1315 Lincoln, Topeka, Kan.

WANTED—GOOD FARM OR UNIM-proved land from owner. H. L. Downing, 134 Palace Bldg., Minneapolis, Minn.

CALIFORNIA IMPROVED ALFALFA, fruit and dairy farms for sale. Terms. E. R. Walte, Shawnee, Okla.

WANTED—TO HEAR FROM OWNER OF good farm for sale. Send description and cash price. R. G. List, Minneapolis, Minn.

FOR SALE—PANHANDLE AND OKLA-homa land. Write D. Thoburn, Higgins, Texas.

OZARKS OF MISSOURI, FARMS AND timber lands, from \$5 to \$40 per acre. Write for list. Avery & Stephens, Mansfield, Mo.

IF YOU WANT TO SELL OR EX-change your farm, write us. Black's Business Agency, Desk C, Chippewa Falls, Wis.

WANTED—TO HEAR FROM OWNER OF farm or unimproved land for sale. C. C. Buckingham, Houston, Texas.

FREE GOVERNMENT LAND IN NEW Mexico. Several hundred thousand acres free; 320-acre homestead. Send 25c for digest land laws and map of New Mexico. W. H. Parker, Fort Sumner, N. M.

FOR SALE—A MODERN HOME IN Topeka, located on a good street, near school and business district; two lots, modern seven-room house, barn, a choice location. Will sell at a bargain. No trades. Address Z, care Kansas Farmer.

CATTLE.

RED POLLED, WILKIE BLAIR, GIR-ard, Kan.

FOR SALE—REGISTERED GUERNSEY bull calf. John Bogner, Mt. Hope, Kan.

HOLSTEINS—TWO FINE REGISTERED bulls for sale cheap. Warren S. Neff, Glen Elder, Kan.

FOR SALE—TWO PURE-BRED HERE-ford yearling bulls. Priced reasonable. W. J. Bilson, Eureka, Kan.

EIGHT REGISTERED SHORTHORN bulls, eight to fifteen months old. One herd header. John J. Thorne, Kinsley, Kan.

FOR SALE—REGISTERED HOLSTEIN male calf, excellent marked and bred, six months old. Sure to please. Price, \$75.00. John Swanwick, Oswego, Kan.

ALYSDALE SHORTHORNS FOR SALE—Six good registered Shorthorn bulls of serviceable age, red in color, prices very reasonable. Write or call upon C. W. Merriam, Columbian Bldg., Topeka, Kan.

DOGS.

TWO REGISTERED NEWFOUNDLAND pups, three months old. Females, \$10 each. Pioneer Kennels, Alert, Ind.

AIRDALE—THE GREAT TWENTIETH century dog. Collies that are bred workers. We breed the best. Send for list. W. R. Watson, Box 128, Oakland, Iowa.

COLLIE PUPS FROM GENUINE STOCK dogs that drive from the heel. Best of breeding. E. L. Dolan, Route 2, Platte City, Mo.

SCOTCH COLLIE FEMALES—ONE FIVE months old, one twenty-eight months; full markings, sable and white; best of pedigree; farm raised; very reasonable. Dr. Mittelstadt, Norfolk, Neb.

BUSINESS CHANCES.

FREE FOR SIX MONTHS—MY SPECIAL offer to introduce my magazine, "Investing for Profit." It is worth \$10 a copy to anyone who has been getting poorer while the rich, richer. It demonstrates the real earning power of money, and shows how anyone, no matter how poor, can acquire riches. Investing for Profit is the only progressive financial journal published. It shows how \$100 grows to \$2,200. Write now and I'll send it six months free. H. L. Barber, 431-28 W. Jackson Blvd., Chicago.

THE STRAY LIST

TAKEN UP—BY J. BRIGGS, IN DAR-lington Township, Harvey County, post office address Newton, R. R. 5, on the 17th day of November, 1915, one iron grey gelding, four years old, weight about 1,080 pounds, shod in front. No marks. Appraised at \$80.00. C. A. Young, County Clerk.

WANTED

WANTED—NICE WHITE WOOLY ES-kimo-Spitz puppies, about six weeks old. Brockway's Kennels, Baldwin, Kan.

WANTED—TO SELL OR TRADE \$1,500 worth of stock in the Arkansas River Bed Oil & Gas Company of Tulsa, Okla., for small stock of general merchandise, groceries preferred. Will pay difference in cash. Write R. J. Conneway, Guthrie, Okla.

WANTED—TO CORRESPOND WITH parties having Single Comb Rhode Island Red strain with trap-nest records of 200 eggs or better. State price on cockerel and eggs by the hundred. Fred B. Gebhart, 1605 West Street, Topeka, Kan.

MISCELLANEOUS.

FOR SALE OR TRADE—ONE GASOLINE plowing and threshing outfit. Bender & Schwab, La Crosse, Kan.

THE FOLLOWING BRAND NEW MA-chines at ridiculously low prices: Two brand new gasoline tractors; numerous new gas engines from 1½ to 12 h. p.; mounted saw rig; power corn shellers, equipped with elevator and cob stackers (mounted); feed grinders and mills; soil packers and cream separator. Address E. A. Smith, 210 Dwight Bldg., Kansas City, Mo.

FOR SALE—LATEST PLAT BOOK OF Shawnee County, 44 pages, size 14 x 19 inches. Shows each township in the county, with name of each property owner on his land, also rural routes, school houses, railroads and complete alphabetical list of taxpayers in county outside Topeka and Oakland. Satisfaction guaranteed. Cloth binding, \$5.00. To close out remaining Bristol board binding will sell a year's subscription to Kansas Farmer and Plat Book for only \$1.50. Last previous county map sold for \$10. Send all orders to Kansas Farmer, Topeka, Kan.

Geuda Springs, Kan., December 28, 1915.

My Dear Kansas Farmer Folks:

Please suspend my ad for a time, as I am sold out of Barred Rock cockerels. The old Farmer is sure a business getter. The orders began coming almost immediately after first appearance of my ad.

I enclose check in payment up to date. Will start ad for eggs a little later.

Thanking you for courtesies extended, I beg to remain,
Yours very truly,

C. D. SWAIM.

HEDGE POSTS.

HEDGE POSTS FOR SALE—CAR LOTS. H. W. Porth, Winfield, Kan.

HORSES AND MULES.

SHETLAND PONIES, GELDINGS, MARES and colts, all colors. C. H. Clark, Leocompton, Kan.

FOR SALE OR TRADE FOR PERCHE-ron stallion, good black jack. J. H. Howard, Larned, Kan.

SHIRE STALLIONS—REGISTERED, well bred, first class stock. James Auld, Wakefield, Clay County, Kansas.

FOR SALE—AN EXTRA GOOD TWO-year-old jack; big boned and good size; black with light points. Archie Myers, Route 1, Osborne, Kan.

SEEDS AND PLANTS.

ALFALFA, SUDAN GRASS, CORN, other seeds. Free samples. F. D. DeShon, Route 4, Logan, Kan.

PURE WHITE BLOSSOM SWEET CLO-ver seed, hulled, \$10 per bushel, 60 pounds. Sacks, 25c. J. N. Thompson, Moran, Kan.

FOR SALE—FIRST CLASS REID'S YEL-low Dent seed corn, \$2 per bushel, on board cars Renfrow. Send for sample. T. J. Lehring, Renfrow, Okla.

NURSERY STOCK.

TREES THAT THRIVE AND PAY FROM grower to planter at direct-to-you prices. Save 40 per cent agents' commissions. Illustrated fruit book free. Just address Wichita Nursery, Box L, Wichita, Kansas.

TREES AT WHOLESALE PRICES—True to name. Packed with care. Fruit book free. Wellington Nurseries, Dept. G, Wellington, Kan.

HONEY.

HONEY—FANCY WHITE EXTRACTED, two 60-pound cans, \$11; light amber, \$10; amber, \$8.50. Bert W. Hopper, Rocky Ford, Colo.

BRAHMAS.

LIGHT BRAHMAS—FIFTEEN EGGS, \$3. Hens, \$2. Nicholas Bach, Hays, Kan.

DARK BRAHMAS—FIFTEEN EGGS, \$3. Pullets or hens, \$2 each. Cockerels, \$5. Nicholas Bach, Hays, Kan.

I SHIP MY LIGHT BRAHMAS AND eggs everywhere from New England to California, from Canada to Florida. Winning the highest premiums wherever shown. Pictorial price list for asking. Mrs. J. R. Kenworthy, Wichita, Kan.

LANGSHANS.

BLACK LANGSHANS—STOCK FROM blue ribbon and sweepstakes winners, young and old. Reduced prices. Mrs. D. A. Swank, Blue Mound, Kan.

EXHIBITION AND UTILITY LANG-shan cockerels from high scoring stock, \$1 to \$5 each. J. A. Lovette, Poultry Judge, Mullinville, Kan.

BLACK LANGSHAN PULLETS, THE winter layers, \$1.50 each. Express prepaid on ten. Also hens, cockerels. Curtis Mullen, Mountain View, Mo.

COCHINS.

PARTRIDGE COCHINS—ALL FULL-blooded stock, prize winners. Fifteen eggs, \$3. Hens or pullets, \$2 each; cockerels, \$4 each. Nicholas Bach, Hays, Kan.

DUCKS AND GEESE.

FAWN AND WHITE RUNNERS, CUP winners. Bert White, Burlingame, Kan.

300 ROUEN, MUSCOVY AND INDIAN Runner Ducks for sale. Fred Kucera, Clarkson, Neb.

DUCKS FOR SALE—WHITE RUNNERS, females, \$1 each. Pure white eggs. J. F. Cox, Route 28, Topeka, Kan.

BABY CHICKS.

BABY CHICKS—FIRELESS HOT WATER brooder—can't freeze water fountain. Get our circular. Kansas Poultry Company, Norton, Kan.

CANARIES.

CANARIES—BEAUTIFUL GOLDEN, guaranteed singers, \$2.50; pair, \$3.50. Mrs. Iver Christenson, Jamestown, Kan.

ORPINGTONS.

FINE BUFF ORPINGTON COCKERELS, \$1 each. White Pekin Ducks, \$1 each. Mary Price, Manhattan, Kan.

S. C. WHITE ORPINGTONS FOR SALE. Pullets and cockerels to mate. Satisfaction guaranteed. Roy Young, Leonardville, Kan.

SINGLE COMB BUFF ORPINGTON cockerels for sale, \$1 and \$2 each. J. W. Falkner, Belvue, Kan.

FOR SALE—FINE BUFF ORPINGTON cockerels, \$1 to \$5. Eggs from blue ribbon winners, \$3, \$2 and \$1 per fifteen. Mrs. Myrtle Howard, Byron, Okla.

RHODE ISLANDS.

RHODE ISLAND WHITE COCKERELS, \$1.25. Will Tonn, Haven, Kan.

R. C. R. I. RED COCKERELS, \$1 AND \$2 each. G. D. Willems, Inman, Kan.

FINE RHODE ISLAND RED COCKER-els, \$1 to \$3. Mrs. F. A. Fulton, El Dorado, Kan.

TWENTY DEEP ROSE COMB COCKER-els for sale. Mrs. Howard Martindale, Madison, Kan.

DARK ROSE COMB RED COCKERELS—Prices right. Louis G. Roth, Holyrood, Kan.

SINGLE COMB RED COCKERELS, large, husky, deep red, for \$2.50 each. Guaranteed. Creighton Harper, Roca, Neb.

ROSE COMB RHODE ISLAND REDS FOR sale, cockerels and pullets, early hatched, dark red. Prices right. E. F. Helsel, Jefferson, Iowa.

LARGE BONED, LONG BACK R. C. deep red cockerels. Utility and show stock. Money back if not satisfied. Highland Farm, Hedrick, Iowa.

BRED TO LAY S. C. REDS, CHOICE cockerels from the finest lot I ever raised, \$1.50 to \$3.50. Eggs, \$1.00 setting, \$4.00 hundred. Guaranteed. Belmont Farm, Box 69, Topeka, Kan.

RHODE ISLAND REDS—FIFTEEN EGGS \$3; hens or pullets, \$2 each; cockerels, \$2 to \$15; cocks, \$5. All good ones. Nicholas Bach, Hays, Kan.

FOR SALE—S. C. R. I. RED COCKER-els, hens, cocks and pullets. Brothers and sisters of our World's Fair winners. Moore & Moore, 1239 Larimer Ave., Wichita, Kan.

FOR SALE—S. C. R. I. RED COCKER-els, \$2 to \$10. Also eggs for setting. Write today for mating list. H. L. White, 1747 N. Waco, Wichita, Kan.

FIFTY ROSE COMB RED COCKERELS for sale at right prices. Every one a good breeder, just the birds to improve egg production. E. H. Hartenberger, Route 4, Box 1, Newton, Kan.

\$2.50 SENT TODAY WILL BUY ONE early-hatched Rose Comb Red cockerel, bred from World's Fair winners. Great laying strain. J. M. Clark, 1012 Baltimore, Kansas City, Mo.

100 ROSE COMB RED COCKS AND cockerels, sired by roosters costing \$15 to \$75. \$1.50, \$5, \$5, \$7.50 each. A few higher. 1916 pens best ever. W. R. Huston, Americus, Kan.

POULTRY WANTED.

PAYING 13c HEAVY HENS, DUCKS AND geese 11c, turkeys 18c, guineas dozen \$4, pigeons 90c. The Copes, Topeka.

PLYMOUTH ROCKS.

BUFF ROCKS—FANCY STOCK CHEAP. Geo. R. Scherman, Olathe, Kan.

DUFF'S MAMMOTH BARRED ROCKS—A. H. Duff, Larned, Kan.

FOR SALE—A FEW WHITE ROCK cockerels at from \$2 to \$5 each. Thomas Owen, Route 7, Topeka, Kan.

BUFF ROCK PULLETS, SISTERS TO my Kansas City and Topeka winners. Also cockerels. E. D. Small, Wilson, Kan.

PURE-BRED BARRED ROCK COCKER-els for sale; prize winning stock, \$1.50 each. Elvis Carter, Bunkerhill, Kan.

BUFF ROCK COCKS AND COCKERELS. High quality. Mrs. Wm. Small, Wilson, Kan.

WHITE ROCK COCKERELS, \$2 TO \$3. Photo free. Mrs. John Ramsey, Fort Scott, Kan.

CHOICE BARRED PLYMOUTH ROCKS—Cockerels for sale, from \$1 to \$3 each. Farm raised. F. A. Hurd, Goodland, Kan.

BUY THE BEST PRIZE WINNING Barred Rock cockerels, \$2 and \$3 each. T. N. Davis, 508 Fillmore St., Topeka, Kan.

WHITE ROCKS, SIZE AND QUALITY. Satisfaction guaranteed. G. M. Kretz, Clifton, Kan.

RINGLET BARRED ROCKS—BEST blood lines. Satisfaction guaranteed. T. J. Embry, Baxter Springs, Kan.

PURE BARRED ROCK COCKERELS—Large, vigorous, well marked, \$1.50 each. Call soon, get the best. S. R. Blackwelder, Isabel, Kan.

NICE BARRED ROCKS, RHODE ISLAND Reds, B. Leghorns. Cockerels, \$1.25, six for \$6. Cocks, 80 cents. J. Hammerli, Oak Hill, Kan.

BARRED ROCKS EXCLUSIVELY. BAR-gains now at \$1 each. Fifteen years a breeder. Florence Belle Ziller, Hiawatha, Kan.

FOR SALE—WHITE PLYMOUTH ROCK cockerels. Range birds, \$1 each, six for \$5. Write for prices on Fishel stock. Mrs. C. J. Hose, Osborne, Kan.

PETIS BARRED ROCKS—HIGHEST scoring cockerels St. Joseph and Kansas City. Heavy laying strain. Cockerels, cocks, \$2 up. Mrs. P. A. Pettis, Wathena, Kan.

CHOICE BARRED PLYMOUTH ROCK cockerels, Bradley strain. Parks 200 egg strain, \$2 to \$5. Gem Poultry Farm, Haven, Kan.

BUFF ROCK COCKERELS BRED FROM Frisco World's Fair champions, \$5 each; elegant breeders. C. R. Baker, Box F, Abilene, Kan.

LINDAMOOD'S BARRED ROCKS—VERY best laying strain. Fine cockerels for sale, hatched from prize winning pens. Light and dark matings. Price \$2.50 to \$5. C. C. Lindamood, Walton, Kan.

WHITE PLYMOUTH ROCK COCKERELS for sale at very reasonable prices. Bred from our Kansas City, Missouri State and other winners. A. E. Glass, Harrisonville, Mo.

BARRED PLYMOUTH ROCKS—FIRST winners; best exhibits Missouri, Nebraska, Kansas, Oklahoma. Exhibition and breeding males. J. K. Thompson, 205 The Drive, Topeka, Kan.

BUFF ROCK COCKERELS FROM Poley's "World Best" exhibition strain. Big growthy fellows, \$2.50 to \$5.00. G. W. Perkins, Newton, Kan.

FOR SALE—CHOICE BARRED PLY-mouth Rock cockerels from champion colored cockerel at Kansas City Poultry Show, January, 1915. Prices, \$2.50 to \$5. L. P. Coblenz, La Harpe, Kan.

ONE HUNDRED BARRED PLYMOUTH Rocks, cocks, cockerels, hens, pullets, bred from prize winners. Thompson and Bradley blood, about as good as they grow. Write your wants. J. L. Deeds, Lyons, Kan.

WHITE ROCK COCKERELS, WHITE Ivory strain. Big growthy fellows, including first prize cockerel, Central Kansas Poultry Show, \$2.50 to \$5.00. G. W. Perkins, Newton, Kan.

WHITE PLYMOUTH ROCKS STILL hold their popularity. Barring one, they were the largest class at the World's Fair at San Francisco. Good to lay, good to eat and good to look at. I have bred them exclusively for twenty-four years and they are one of the best breeds extant. Eggs from first-class birds, the same kind I hatch myself, \$2 per 15, \$5 per 45, and I prepay express or postage to any part of the Union. Thomas Owen, Route 7, Topeka, Kan.

LANIER'S BRED-TO-LAY BARRED Plymouth Rocks of superlative quality. (Pittsfield and J. W. Parks strains.) They are standard-bred, every one of them. The males that head our pens are pedigreed, whose dams with records of 210 eggs or better. We have females that are bred from high record hens. If interested in filling the egg basket, we can supply you in eggs for hatching, four and eight-week-old chicks. Write for prices today to DeWitt Lanier, Barred Rock Specialist, Cardwell, Mo.

SEVERAL BREEDS

EGG CASES, 15c EACH. THE COPES, Topeka.

3,479 COCKERELS—41 VARIETIES—Chickens, geese and ducks. Seeds and trees. Aye Bros., Box 18, Blair, Neb.

ROSE COMB REDS, BUFF ORPINGTONS, Light Brahmas and Geese. Emma Ahlstedt, Roxbury, Kan.

TWENTY LEADING VARIETIES, EGGS and baby chicks. Write for information. Royal Poultry Yards, Coffeyville, Kan.

STOCK, EGGS, BABY CHICKS, LEG-horns, Campines, Orpingtons, Langshans, R. I. Reds, Plymouth Rocks, Wyandottes. Stock, \$2 each; eggs, \$1.50 per 15, \$5 per 100; chicks, 15c each. Miller Poultry Farm, Box K, Lancaster, Mo.

I HAVE SIXTY BRONZE TURKEYS yet. Pullets, \$3 to \$5; young toms, \$5 to \$10. I won all firsts, Dalhart, Texas, '12 and '13, and Unionville, Mo., 1914. Eggs for hatching, \$6.00 per dozen. Have some fine Barred Rock cockerels and Black Langshans for sale. Write your wants. J. W. Anders, Route 8, Unionville, Mo.

TURKEYS.

PURE-BRED WHITE HOLLAND TURKEYS. Winnie Liffon, Peabody, Kan.

GOOD PURE-BRED MAMMOTH BRONZE TURKEYS. Sadie Liffon, Peabody, Kan.

PURE-BRED BOURBON RED TOMS, \$3.50. Maude Moore, Olivet, Kan.

BOURBON RED TURKEYS, PURE-BRED TOMS \$5, hens \$3. J. W. Wright, Route 6, Newton, Kan.

PURE-BRED BOURBON RED TOM FOR \$5. Weight, 19 pounds at seven months old. Mrs. S. G. Coleman, Oakley, Kan.

PURE-BRED MAMMOTH BRONZE TOMS for sale at \$4 each. Big husky fellows. Geo. L. Reese, Lost Springs, Wyo.

OAK HILL FARM, PURE-BRED M. B. TURKEYS. High scoring, from 95 to 98%, standard weight. Route 3, Lawson, Mo.

MAMMOTH BRONZE TURKEY TOMS for sale, range raised, five dollars each. Zada Black Hulbert, Lakeland, Kan.

MAMMOTH WHITE HOLLAND TURKEYS—Toms twenty-four, pullets fifteen and sixteen pounds. Miss Lillian Schaal, Lexington, Mo.

BRONZE TURKEY TOMS, \$5; HENS, \$3. Single Comb White Leghorn eggs, \$1 per 15 or \$5 per 100. Mrs. Mabel Sullivan, Route 7, Abilene, Kan.

BOURBON RED TURKEYS FROM PRIZE STOCK. Toms, \$5; hens, \$3. Also pure Single Comb Reds, very fine. Mrs. Elmer Nicholson, Route No. 5, Wellington, Kan.

CHAMPION BRONZE TURKEYS, Sired by some my 52-pound champion tom. Well marked, white edging, won many prizes in largest show. Pleased customers in thirty states. Ike Hudnall, Milan, Mo.

MAMMOTH BRONZE TURKEYS OF EXCELLENT breeding and quality. Parents winners at Kansas State and other shows. 1915 hatch won at late Panama-Pacific Exposition. Write your wants. Mrs. H. E. Bachelder, Fredonia, Kan.

When writing advertisers, please mention **KANSAS FARMER.**

LEGHORNS.

WHITE ROCKS, WHITE LEGHORNS. Priced right. Ross Lane, Newton, Kan.

BIG PRIZE ROOSTERS, BUFF, CHEAP. Mrs. S. F. Crites, Florence, Kan.

R. C. W. LEGHORN COCKERELS, \$1.00 and \$2.00 each. F. W. Cornell, Wakefield, Kan.

SINGLE COMB WHITE LEGHORN COCKERELS of quality, \$1. Will Tonn, Haven, Kan.

SINGLE COMB BROWN LEGHORNS—Pullet mating only. Tiff Moore, Osage City, Kan.

S. C. BROWN LEGHORN COCKERELS—Extra quality, \$1 each, six for \$5. Mrs. L. H. Hastings, Thayer, Kan.

ROSE COMB BROWN AND SINGLE Comb White Leghorn cockerels, \$1 each. W. C. Gilmore, Onida, Kan.

SEVERAL CHOICE SINGLE COMB White Leghorn cockerels. Young's strain. Prices, \$3 to \$5. Francis Elias, Wymore, Neb.

ENGLISH STRAIN WHITE LEGHORNS—Cockerels, pullets or hens, \$1 each. Eggs for hatching, in season. Mrs. Ben Johnson, Belton, Mo.

THIRTY ROSE COMB WHITE LEGHORN cockerels, state and national winners. Price, \$2 to \$5. Satisfaction guaranteed or money refunded. Ruth McFarland, Route 1, Sedalia, Mo.

S. C. B. LEGHORN COCKERELS—FINE dark ones, from hens scoring to 94; sired by second prize cockerels, Kansas State Show. Price, \$1 each; \$5 for six. Few show birds, \$3 to \$5. Will win. Jewell Bros., Humboldt, Kan.

LAKEVIEW POULTRY FARM OF PEER-less D. W. Young and Barron strains of S. C. White Leghorns, bred to win and lay. Won at Fredonia, Kan., 1915, six firsts, \$16 cup for best birds in show in strong class; Topeka, second cock, first, third cockerel, first, third pullet. I have thirty-five cockerels and some pullets to sell. Write for prices. Eggs in season. A. K. Sell, Fredonia, Kan.

WYANDOTTES.

R. C. BUFF WYANDOTTE STOCK FOR sale. G. G. Wright, Langdon, Kan.

CHOICE WHITE WYANDOTTE COCK-erels, \$1.50 to \$5.00. Mrs. Will Belghtel, Holton, Kan.

FOR SALE—1,000 SILVER WYANDOTTES. Write for catalog. Frank Faha, Jr., Box K, Dyersville, Iowa.

"BEAUTIFUL" SILVER WYANDOTTES, \$1.50 to \$5. Write Mrs. Edwin Shuff, Plevna, Kan.

WHITE WYANDOTTES, WORLD'S FAIR winners. Mammoth Pekin and Buff Ducks and capons for mothers for incubator chicks. Mrs. A. J. Higgins, Route 1, Effingham, Kan.

FOR SALE—W. WYANDOTTE COCK, blue ribbon and sweepstakes winner, high score. Also hens and pullets. G. D. Williams, Inman, Kan.

QUALITY WYANDOTTES—STOCK AND eggs for sale. Special prices on a few good breeding cockerels. Square Deal Poultry Farm, Exeter, Neb.

FOR SALE—PURE-BRED SILVER WY-andotte cockerels, \$1.50 each; six for \$8.00. Choice breeding. Mrs. Philip Schuppert, Ar-rington, Kan.

CHAMPION WHITE WYANDOTTES OF the West. A grand lot of cockerels for sale at greatly reduced prices. If you want to win the blue at your show this winter you will need some of my birds, as they are bred to lay and to win the blue for you. Write me your wants. N. Kornhaus, Peabody, Kan.

If on the market for pure-bred stock, read **KANSAS FARMER** live stock advertisements. You will find what you want.

Live Stock Farmers Meet

The live stock men of Southeastern Kansas are preparing for their third annual meeting, which will be held in Parsons February 23 and 24. These men fully realize the importance of live stock to this section. From experience they also realize that there are obstacles in their path, and that it is not all easy and smooth sailing to profit making. Believing that these obstacles can best be overcome and that the natural live stock resources can best be taken advantage of by working together and solving these problems in an unselfish manner, a temporary organization was formed at a meeting held at Independence January 6. Those present at this meeting were Wm. O'Bryan, St. Paul; H. M. Hill, LaFontain; J. H. Keith, Coffeyville; H. I. Gaddis, McCune; L. S. Edwards, Oswego; E. S. Meyers, Chanute; H. B. Musser, Parsons, and C. G. Elling, district agent representing the Kansas State Agricultural College and United States Department of Agriculture.

Preparations were made to make the program for this conference of great practical value to stockmen of this section. On this program will be given interesting talks on live stock subjects by the best talent that can be secured. In a large tent there will be held judging demonstrations of all classes of live stock. This stock will come from the best herds in this section, and a carload from the agricultural college to be used for demonstration purposes. Nothing will be left undone to make this the largest and most practical program ever held in this section.

This conference is conducted co-operatively by the farmers of Southeastern Kansas, the Kansas State Agricultural College, the United States Department of Agriculture, Parsons Chamber of Commerce and the M. K. & T. railroad. At least two hundred farmers in this section are taking great interest and helping in the preparation of this program.

The members of the temporary organization concluded that "The Pasture Conditions," "Utilization of Rough Feeds," "Economic Production of Young Stock by Means of a Herd on Every Farm," and steps for the securing of a branch experiment station for this section, shall be the features of the program in addition to the judging demonstrations.

Co-Operative Angus Show Herd.

The first act of the Kansas Angus Breeders' Association, which held a meeting in Topeka last week, was to make plans for placing a show herd of Angus cattle on the circuit, consisting of choice animals selected from the herds of the best breeders in the state. This is a most progressive move, and will result in getting together a much better herd than it would have been possible for any single breeder in the state to show.

The individuals composing this herd will be selected under the direction of Professor W. A. Cochel of the animal husbandry department of the agricultural college. They will be placed in the hands of a competent herdsman or fitter and will be shown at the various fairs next fall. This is a most progressive move, and cannot help bringing Kansas-bred Angus cattle into prominence.

In the election which took place at this meeting, the temporary officers elected at Kansas City last fall, were made officers for the coming year. The president is George McAdam, of Holton; vice president, W. W. Balthrope, Whiting; secretary, William Ljungdahl, Manhattan; treasurer, E. L. Barrier, Eureka.

New Auto Road Map.

KANSAS FARMER has just secured a new edition of maps, including the latest corrected map of Kansas showing all railroads and post offices, population of towns, and giving all the information usually found in an up-to-date map. The newly laid out cross state auto roads are plainly indicated in heavy green lines on this Kansas map. Anyone wishing to drive across the state can easily find the best road by following the lines. The size of each page is 28 x 36 inches.

The wall map or chart consists of two sheets, making four pages of maps and other valuable information. Page four contains a large map of the European countries at war. The price of this map wherever sold is \$1. However, by purchasing a large number we are enabled to offer one of these maps, with a year's subscription to **KANSAS FARMER**, for only \$1.05 postpaid. This offer is for new or renewal subscriptions. We will send the map postpaid and enter or renew a subscription to **KANSAS FARMER** for three years, for \$2. Address all orders to **KANSAS FARMER**, Topeka.

Prevention should be the chief health measure in the chicken yard.

First Annual Tractor Show Kansas City

February 7th to 12th.

Same Week As Automobile Show

The first tractor show ever held. There will be 75 to 100 tractors, also tractor accessories, on display under one roof. The decorations will be unusual. The Show will be given by the **Kansas City Tractor Club**, composed of tractor distributors. Location, one-half block east of Union Station.

Come and Buy Your Tractor During This Show

ATTENTION! POULTRY BREEDERS

The buying season for pure-bred poultry is here. Farmers and poultry breeders all over the country are looking for breeding stock and eggs.

THE SPECIAL POULTRY EDITION OF KANSAS FARMER WILL BE ISSUED FEBRUARY 5



Will place your offering before thousands of prospective customers.

You cannot afford to miss this opportunity to place your offering in a sure market. All copy must be in the office not later than January 29. **GET YOUR ORDER IN NOW.** Address all orders to



KANSAS FARMER, TOPEKA, KANSAS

BIG COMBINATION SALE

Wichita, Kansas., Feb. 14th to 19th

All Breeds of Pure-Bred Horses, Cattle, Hogs, Jacks, and Jennets. Send In Your Entries at Once.

We now have listed some of the best live stock grown in Kansas, Missouri and Oklahoma.

Olivier & Sons sells twenty bred sows out of their famous show herd. They are sired by champion boars and bred to such champions as Chief Price, Logan Price, A Wonderful King, Model Expansion, Smuggler, etc.

We sell ten bred sows from the home of A Wonder, New London, Missouri.

Five sows sired by

A WONDER, THE GREATEST BIG-TYPE BOAR IN POLAND CHINA HISTORY

Thirty Duroc bred sows consigned by W. B. Wooddell and bred to the good boar, Cowley Wonder, and Crimson King.

We will sell fifty to seventy-five head of imported and American-bred Percheron stallions, mares and colts, including Imported GANFRIER, grand champion Kansas State Fair, 1912, and sire of ROWDY BOY, an American Royal grand champion.

Fifty jacks and jennets, including two carloads of the big kind from the "Show Me" state.

Fifty Holstein and Jersey bulls, cows and heifers.

Fifty Shorthorn bulls, cows and heifers.

Fifty Hereford bulls, cows and heifers.

If you have registered stock of any kind that you would like to sell at this sale, write at once for sale charges.

Catalogs are now ready for our big sale at Enid, January 25 to 28, with about 300 head of stock to sell.

F. S. KIRK, Sale Mgr., Enid, Okla.

Address Care Manhattan Hotel, Wichita, Kansas, after February 1.

SANITARY DAIRY FARM HERD HOLSTEIN CATTLE

I am closing out my valuable dairy herd and will sell at public auction
at 10 a. m.

WEDNESDAY, FEB. 2, 1916

in comfortable cow barn at

CLAY CENTER, KANSAS



17 - HIGH GRADE HOLSTEIN COWS - 17

From three to five years old, all bred to a registered Holstein bull, to freshen
from February 15 to April 15.

Twenty-three high grade heifers, nicely marked and very promising, but
not bred. All are from cows that were very high class and tested paying
dairy cows.

One very high class registered bull, coming two years old, sired by
Forbes Mutual Longfield and bred by Edgewater Stock Farm, Ft. Atkin-
son, Wisconsin.

If you want some valuable cows or young promising heifers, come to my
sale. There will be some real bargains. Nothing reserved, everything will
be sold.

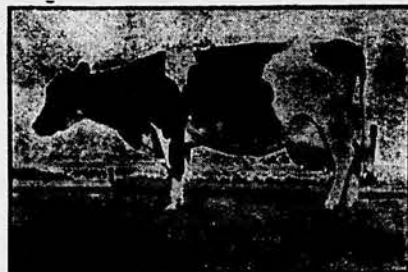
Dr. R. H. GRAHAM, Clay Center, Kan.

AUCTIONEER—JAS. W. McCULLOCH.

HOLSTEIN CATTLE SALE

**AT FARM NEAR
ABILENE, KAN.**

JANUARY 27, 1916



Twenty-five choice high-grade Holstein cows and heifers from yearlings
to full aged cows. Some giving milk, others to freshen soon. All tuberculin
tested, clean in every way. All cows have dropped living calves within last
year. All bred to registered bulls. This offering is high class in every way.
Come if you want good Holsteins. Send for catalog.

E. S. ENGLE & SONS, Abilene, Kansas

AUCTIONEERS—Jas. T. McCulloch, C. W. Curphy, J. G. Engle.

Sell Him Now!

If you have a pure-bred bull, boar or other breeding
animal that you cannot use in your own herd an-
other season, why not sell him now? There are
always buyers looking for pure-bred sires. Their
trouble is to find a good animal. Your cue is to tell
them where to find him, through the Classified
Columns of

Kansas Farmer

The committee appointed at the recent
meeting of the National Swine Growers'
Association to arrange for a National Swine
Show, believe it advisable to make an-
nouncement at this time that a show of
this kind is now assured for some time dur-
ing the first half of October, 1916. The
committee believes that nothing but inter-
ference by quarantine regulations will pre-
vent the holding of a swine show that will
be in every sense of the word, national in
character, and undoubtedly as great a show
of hogs as has ever been gotten together.
A \$10,000 prize fund is assured. This is

made certain by a guarantee of \$2,000 for
each one of five breeds of hogs. The rec-
ord associations are back of this prize fund.
It is altogether likely that some of the
other breeds will participate in the show
on the basis of a smaller prize list, probably
\$1,000 for each breed.

Wabauensee, Kan., January 7, 1916.
Kansas Farmer.—I am writing you that
we have sold all of our cockerels and want
you to take the ad out of the paper, for we
are getting cards every day. Thanking you
very much, Yours truly—GRACE KUGLER.

FARM AND HERD

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager, Stock Adver-
tising. O. W. Devine, Representative

**Address All Communica-
tions to Kansas Farmer
and Not to Individuals**

Personal mail may have to be held
for several days, or be delayed in
forwarding, and Kansas Farmer
cannot assume any responsibility
for mistakes occurring thereby

CLAIM SALE DATES.

Percherons and Other Draft Breeds.
Jan. 25, 26, 27, 28, 1916—Breeders' sale,
Bloomington, Ill. C. W. Hurt, Mgr., Ar-
rowsmith, Ill.

Percherons.
Feb. 24—Breeders' Sale, Hutchinson, Kan.
C. B. Warkentin, Newton, Kan., Manager.

Jacks and Jennets.
March 6, 1916—W. J. Finley, Higginsville,
Mo.
March 7 and 8—L. M. Monsees & Son, Smith-
ton, Mo.

Shorthorns.
April 5 and 6, 1916—Central Shorthorn Sale,
Independence, Mo.

Hereford Cattle.
March 4—Northwest Missouri Hereford
Breeders' Association. Sale at South St.
Joseph, Mo. Jesse Engle, Sheridan, Mo.,
sales Mgr. H. D. Cornish, Osborne, Mo.,
Secretary.
March 6—Kansas Hereford Breeders, Man-
hattan, Kan. Prof. W. A. Cochel, Mgr.

Holsteins.
Jan. 27—E. S. Engle & Son, Abilene, Kan.
Feb. 2—Dr. R. H. Graham, Clay Center,
Kan.
Feb. 9—A. W. Hurst & Sons, Bolckow, Mo.
Feb. 23—Nebraska Holstein Breeders' Sale
Co., sale at South Omaha. E. M. Little,
Clarks, Neb., Manager.

Combination Breeders' Sale.
Feb. 15 to 18—S. S. Kirk, Manager, Wichita,
Kan.

Durocs.
Jan. 26—R. P. Wells, Formoso, Kan.
Feb. 8—J. A. Porterfield, Jamesport, Mo.
Feb. 15—Kansas State Agricultural College,
Manhattan, Kan.
Feb. 16—Thompson Bros., Garrison, Kan.

Poland Chinas.
Feb. 2—Will G. Lockridge, Fayette, Mo.
Feb. 4, 1916—J. A. Godman, Devon, Kan.
Feb. 5—Fred B. Caldwell, Howard, Kan.
Feb. 8—L. V. O'Keefe, Stillwell, Kan.
Feb. 9—H. L. Faulkner, Jamesport, Mo.
(Spotted Poland Chinas)
Feb. 15, 1916—Herman Gronniger & Sons,
Bendena, Kan.
Feb. 16—Kansas State Agricultural College,
Manhattan, Kan.
Feb. 17—H. C. Graner, Lancaster, Kan.
Feb. 18—H. B. Walter, Effingham, Kan.
Feb. 19—Belcher and Bennett Bros., Lee's
Summit, Mo.
Feb. 19—Olivier & Sons, Danville, Kan.
Feb. 23—U. S. Byrne, Saxton, Mo. Sale at
St. Joseph Stock Yards.
Feb. 23—F. E. Moore & Son, Gardner, Kan.
Feb. 26—A. J. Erhart & Sons, Ness City,
Kan.
March 1—Clarence Dean, Weston Mo. Sale
at Dearborn, Mo.

O. I. C. and Chester Whites.
Feb. 2—J. H. Harvey and F. B. Goodspeed
& Son, Maryville, Mo.

George A. Dietrich, of Carbondale, Kan.,
owner of one of the good Aberdeen Angus
herds in this state, reports his herd doing
well. He also reports considerable inquir-
ies for good Angus bulls and has made a
number of sales during the last few weeks.

D. A. Kramer, of Washington, Kan., re-
ports his Jersey herd doing well. Mr. Kra-
mer has one of the heavy producing herds.
The young stock in the herd at this time is
a choice lot, including an outstanding young
bull by a sire of Golden Fawn's Lad breed-
ing and out of Fox's Top Sunflower, a
granddaughter of the champion, Flying
Fox. She has a record of 1,260 pounds of 5
per cent milk in thirty days and is a show
cow.

Prof. O. E. Reed of the Kansas Experi-
ment Station furnished a man in October
and another in December to test some
heifers for advanced registry in H. B.
Cowles' Braeburn herd of Holsteins just
south of Topeka. Juliana Inka De Kol 2d,
one of those tested last month, made a rec-
ord of 314 pounds of milk and 14.74 pounds
of butter in a week as a junior three—that
is, a heifer freshening under 3½ years.
This is not remarkable as Holstein records
go; but many dairymen are milking heifers
of that age two, or three, or four weeks to
get that much. It is 2.1 pounds of butter a
day from not quite six gallons of milk.

Dr. C. E. Ackerman, of Bolivar, Mo., is
one of the good boosters for improved live
stock on every farm. Doctor Ackerman has
splendid herds of registered Jersey cattle
and O. I. C. hogs. He also has one of the
good flocks of S. C. White Leghorn chickens
in that state. He has a heavy producing
herd of Jerseys and his O. I. C. herd is one
of the great herds now assembled. The
young stock in his Jersey and O. I. C. herds
is a choice lot. He is breeding a choice
lot of early O. I. C. gilts for spring farrow.

James Dorsey, a wealthy cattle raiser of
Kane County, Illinois, will enter a plea to
the government mail fraud charge on Feb-
ruary 8. William S. Forrest, his counsel,
asked for an extension of time, pleading
that he had but recently engaged in the
case. Judge Landis granted the extension.
Dorsey is accused of having used the mails
to sell cattle which he knew to be tuber-
culous, but that he asserted were sound. He
was indicted September 30.

On Tuesday, February 8, L. V. O'Keefe,
of Stillwell, Kan., will hold his annual Poland
China, bred sow sale. Ten tried sows
thirty-three head of large fall yearling
gilts and three spring gilts will go in this
offering. These sows and gilts will be bred
to a King by Iowa King, Big Logan Ex.
Wedd's Long King and Sterling Prince. All
are large-type boars that are proven sires.
The choice sows bred to these boars are the
kind that are profitable.

DUROC JERSEYS.

Sisco's Duroc Jerseys PRIZE WINNING BLOOD

Big, growthy, richly-bred gilts, bred to a
choice son of the great boar, A Critic, for
spring farrow. Outstanding spring boars.
Also a choice herd boar. Prices right.

A. E. SISCO, Route 2, TOPEKA, KS.

BIG-TYPE HEAVY-BONED DUROCS

Bred sows and gilts by Blue Ribbon
Model, first prize winner at Iowa, Minne-
sota and South Dakota, 1911. Bred to illus-
trator Jr. and Col. Gano Again.
CHAS. CHRISTIANSON, AKBON, IOWA.

DUROC JERSEY BOARS

Sired by Country Gentleman 132541, Gold
Medal 17831 and Long Wonder 2d 168335.
All immune. Prize winning blood. We price
them right.
W. R. HUSTON - AMERICUS, KANSAS

DUROC BOARS AND BRED GILTS

Large, smooth, easy-feeding type. From
champions Long Wonder, Defender, Su-
perba and Golden Model breeding. Also
fall pigs. Everything immune.
JOHN A. REED - LYONS, KANSAS

BOARS! BOARS! BRED GILTS!

Eighteen big husky boars, thirty bred
gilts, a few tried sows. Crimson Wonder,
Illustrator II, Colonel, Good Enuff, Defender
breeding. Either by or bred to sons of the
greatest champions of the breed. Priced for
quick sale. Immune.
G. M. SHEPHERD - LYONS, KANSAS

DUROC HERD BOARS.

One herd boar 4 years old, sired by Buddy
K 4th, \$50. Twenty spring and summer
boars, \$15 to \$20. Twenty spring gilts,
weight 175 to 230, safe in pig to a good son
of Okey's Dream, \$25 to \$30. Forty fall pigs
at \$10.
E. C. WATSON - ALTOONA, KANSAS

GUARANTEED IMMUNE DUROC BRED GILTS

Pedigreed Duroc gilts, prize winning blood,
guaranteed immune and in farrow. Shipped
to purchaser on approval before he pays for
them. Prices reasonable. Address
F. C. CROCKER - FILLEY, NEBRASKA

OHIO IMPROVED CHESTERS

Murray's O. I. C. Chesters

A few choice boars. Forty choice gilts
bred for March farrow; thirty for April far-
row. All bred to silver cup winner. They
are priced low.

CHAS. H. MURRAY, FRIEND, NEBRASKA

O. I. C. HOGS

Guaranteed cholera immune. Long, smooth,
good bone. Boars ready for service, gilts
bred or open, \$17.50 to \$25. Pedigrees fur-
nished.

CEDAR VIEW STOCK FARM, Bolivar, Mo.

Dr. C. E. Ackerman, Sec'y.

JERSEY CATTLE.

OLIVER'S JERSEYS.

For Sale—Jersey bull dropped Nov. 15,
1914. Solid gray fawn, shading darker on
sides and neck. Sire, Blue Belle's Owl
79641; dam, Fauv's Wild Rose 253822, im-
ported, ten months record milk 6,345.1 lbs.;
fat, 328.44 lbs., on every-day care and dairy
feed. This is a magnificent bull, guaranteed
to please. Price, \$100. Address
ROLLA OLIVER, Box 701, St. Joseph, Mo.

SMITH'S JERSEYS

BLUE BOY BARON 99918
Five years old, solid light fawn, blue ribbon
winner. Must change. Keeping his heifers.
His sire, half brother to Noble of Oaklands,
sold for \$15,000. His first five dams on his
dam's side made 102 lbs. butter in seven
days. Also four of his sons, serviceable age,
and a few females. Will sell very cheap.
S. S. SMITH, CLAY CENTER, KANSAS.

CHOICE JERSEY BULL

Yearling Jersey bull for sale, from dam
that gave 1,260 pounds of 5 per cent milk in
thirty days. Also a bred heifer and a five-
months-old heifer calf.

D. A. KRAMER, WASHINGTON, KANSAS

LINSCOTT JERSEYS.

First Register of Merit herd in Kan-
sas—Established 1878.
Oakland Sultan, first Register of Merit
sire in Kansas, is dead. Last chance
to get one of his daughters, \$100.
E. J. LINSKOTT - HOLTON, KANSAS.

CHAMPION BLOOD

Young bulls by Crestala's Interested Owl
114512, whose sister has broken the Jersey
milk record, giving 19,744 pounds of milk.
These bulls are out of very good cows. Write
or call on R. A. GILLILAND, Mayetta, Kan.

REGISTERED JERSEY HEIFERS.

They are bargains and will soon go at
prices asked; 2 to 5 months old. Write to-
day. **Parkdale Farm, Vandalla, Mo.**

GUERNSEY CATTLE

TEN GUERNSEY COWS AVERAGE 947 LBS. FAT

Large and Economical production is the
key to larger profits. The Guernsey Cow
is a sure way to increased profit.

Shall we send literature?
Guernsey Cattle Club.

Box K, Peterboro, N.H.

GALLOWAY CATTLE.

GALLOWAY BULLS

FORTY yearling and two-year-old bulls,
strong and rugged; farmer bulls, have been
range-grown. Will price a few cows and
heifers.

E. E. FRIZELL, Frizell, Pawnee Co., Kan.

TAMWORTH HOGS.

TAMWORTH PIGS
Of summer birth, from massive, natural
immune parents. Sent in pairs not akin.
Write **Q. I. SIMPSON, Palmer, Illinois.**

SHORTHORN CATTLE.**CEDAR LAWN SHORTHORNS**

For Sale—A number of choice bull calves from 8 to 16 months old, by Secret's Sultan 363833 by Missie's Sultan by Glenbrook Sultan by Whitehall Sultan and out of West-lawn Secret 2d, weight 2,200 in breeding condition. Description guaranteed.

S. B. AMCOATS - CLAY CENTER, KAN.

Tenneholm Shorthorns

Collynie Hampton 353998 in Service.

FOR SALE NOW: Eight good bulls from 7 to 17 months old; four Scotch, four Scotch topped Bates. Some of them high-class herd heads. A few bred cows and heifers for sale also. Our prices are not high. Farm one mile from town.

E. S. MYERS - CHANUTE, KANSAS

PEARL HERD SHORTHORNS

Valliant 346162 and Marengo's Pearl 391-962 in service. Twenty head of young bulls for sale, ranging in age from 10 to 20 months. Reds and roans, in good thrifty condition and the making of good useful animals. Inspection invited.

C. W. TAYLOR, Abilene, Kans.

ALFALFA LEAF SHORTHORNS

Young bulls for sale, from 8 to 14 months old. Also some females, bred or open, with breeding and quality.

John Regier, Whitewater, Butler Co., Kan.

HILL'S SHORTHORNS

Two choice Shorthorn bulls. One red, ten months old, sired by Bettie's Albion 399451. One white, eight months old. Extra fine and priced to sell.

C. E. HILL - TORONTO, KANSAS

Sycamore Springs Shorthorns

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

H. M. HILL - LAFONTAINE, KANSAS

Cloverdale Shorthorns

Two very choice yearling bulls, big-boned and beefy; few nice heifers also. Priced \$100 to \$125.

JEWELL BROS., HUMBOLDT, KANSAS.

Cedar Heights' Shorthorns

Eight head of pure Scotch and Scotch-topped bulls for sale, ten to sixteen months old. Reds and roans. Phone 59-N-1.

HARRY T. FORBES, Route 8, Topeka, Kan.

Shorthorns

20 bulls and heifers sired by Duchess Searchlight 348529, a 2,500-pound bull, and from cows weighing 1,400 to 1,600 pounds. Good milkers. Come or write.

A. M. MARKLEY & SON, MOUND CITY, KANSAS

HEREFORD CATTLE.**STAR BREEDING FARM**

FOR SALE—Herefords and Durocs: 65 yearling and two-year-old bulls by Tophon 4th, Hesslod, Anxiety, March On and other good sires. 25 females, some have calves at foot and bred again. 10 head heifer calves. 30 head of registered Duroc gilts sired by a son of Ohio Chief and son of Buddy K 4th, out of sows by grand champions. Come and see me.

SAM DRYBREAD - ELK CITY, KANSAS

HEREFORD CATTLE SALE

Perry Bros. and J. O. Southard will sell 200 head of registered Hereford cattle on February 5, 1916, in Council Grove, Kansas. Address Perry Bros., Alta Vista, Kansas, or J. O. Southard, Comiskey, Kan., for catalogs.

When writing advertisers, please mention KANSAS FARMER.

ANGUS CATTLE**ABERDEEN ANGUS**

We Offer For Sale Bulls and Heifers, Any Number, Single or Carload Lots.

These cattle have size and quality and are bred in the purple. See them at Lawrence—forty miles from Kansas City, on Santa Fe and Union Pacific railways.

SUTTON & PORTEOUS

Phone 8454. Route 6, Lawrence, Kan.

CHOICE ANGUS BULLS

Eight registered Angus bulls, yearlings and calves, choice individuals, best breeding. Also a few choice cows. Prices reasonable. On Santa Fe, 18 miles south of Topeka.

GEO. A. DIETRICH, CARBONDALE, KAN.

Breeders' Directory**PERCHERON HORSES.**

M. E. Gideon, Emmett, Kan.

ANGUS CATTLE.

Geo. McAdam, Holton, Kan.

SHORTHORNS.

E. E. Heacock & Sons, Hartford, Kan.

C. H. White, Burlington, Kan.

HOLSTEINS.

C. E. Bean, Garnett, Kansas.

JERSEY CATTLE.

J. B. Porter & Son, Mayetta, Kan.

DORSET-HORN SHEEP.

H. C. LaTourette, Route 2, Oberlin, Kan.

POLAND CHINA HOGS.

Wm. M. Dixon, New Florence, Mo.

FARM AND HERD.

Percheron breeders will be pleased to learn that C. B. Warkentin, Charles Molzen and A. C. Tangeman, all prominent Percheron breeders of Newton, Kan., have announced a breeders' sale to be held at the state fair grounds pavilion, Hutchinson, Kan., February 24. They will catalog thirty-seven head of choice stallions and mares selected from the fine herds for this sale. The offering will include fourteen stallions and twenty-three mares and fillies. Nine of the stallions are of serviceable age and fifteen of the mares are of breeding age. Nearly all of the mares are showing safe in foal. The entire offering will be a useful lot of Percherons.

Catalogs are out announcing the bred sow sale of Fred B. Caldwell, of Howard, Kan. This sale will be held on the farm near Howard and promises to be one of the best sales of the season. Forty-five head of choice big-type bred sows are catalogued. Sixteen tried sows are by Expansion, Bell Metal, Big Chief and M's Giant Wonder; twenty yearling sows, seventeen sired by Elkmore Jumbo, one by Big Bob Wonder. Fourteen of these sows will be bred to Orphan Boy by Big Orphan; twelve head will be bred to O U Wonder, a grandson of A Wonder; fifteen will be bred to Caldwell's Big Bob, the highest priced spring boar that sold last fall in Kansas and said by many good judges to be the best individual.

Paul E. Johnson, the well known Holstein cattle man at South St. Paul, Minn., has completed arrangements to open a branch business at Olathe, Kan. During the past few years Mr. Johnson has furnished a very large number of Holstein cattle to farmers and breeders of the southwestern states and on account of the increased demand he decided to open a branch at Olathe. He has procured barns and yards adjoining the city limits that will accommodate three hundred head of cattle. He expects to keep on hand at all times a large number of very choice cows and heifers and registered bulls, and will endeavor to furnish them at prices that will justify farmers and breeders of Kansas in buying at home rather than assume the risk and additional expense of shipping for a long distance. He will make a specialty of Holstein heifers and while he will always have on hand a reasonable number of mature cows, the greater part of the herd that he will keep will be heifers from calves to three-year-olds. All cattle that he will handle will be tuberculin tested and straight in every way.

Catalogs are out for R. P. Wells' Duroc bred sow sale to be held at Formoso, Kan., January 26. Mr. Wells has catalogued twenty-five head of very carefully selected tried sows and gilts. A large per cent of them are by Crimson Defender 142519 by I Am A Crimson Wonder 2d and out of Defender Lady by the great sire, Defender, twice grand champion at the International and which sold twice for \$5,000. Others are by Model A 168243 by Model Hero and out of the great sow, Nora Belle. There will also be sows by Buddy O. K. 13309 and Dreamland Col. All sows and gilts not carrying the blood of Crimson Defender will be bred to him. The others will be bred to Marsh Creek Col., a very fine young boar that is proving to be an exceptionally good breeder. Some of this breeding and type will be profitable on any farm.

The two splendid Aberdeen Angus herds owned by George McAdam, of Holton, Kan., and Belthorpe Bros., of Whitting, Kan., have been consolidated and will now be under the management of Mr. McAdam, who is a pioneer breeder of pure-bred Angus cattle. The consolidated herd consists of forty-five head of richly-bred very choice individuals, including two herd bulls that are among the best now in service. Mr. McAdam expects to dispose of one of the herd bulls and the other will head one of the best herds of Aberdeen Angus cows in this state.

We have received one of J. A. Godman's nicely illustrated catalogs of his Poland China sale to be held at his farm near Devon, Kan., February 4. This offering promises to be one of the best collections of bred sows that will be sold in a public sale this spring. They are the tops of fifteen sales of 1914 and 1915 and are sired by such noted boars as Grand Look, Tecomseh Hadley, Gold Medal, Long Prospect, Palmer's Orphan, Expansion Hadley, King Blain by Blain's Wonder, Wedd's Long King, Wales' Missouri King, Expansion Hadley and Wedd's Expansion. Bred to Big Wonder, a grandson of A. Wonder; Dan Hadley 2d by Big Hadley, and Sure Prospect by Expansion Sure.

Dr. R. H. Graham, owner of a splendid dairy herd of Holstein cattle at Clay Center, Kan., has announced Wednesday, February 2, for a complete dispersion of his entire herd of high grade Holsteins, consisting of seventeen cows from three to five years old, twenty-three head of young heifers and one registered two-year-old bull. This is not a reduction sale to sell a surplus, but a dispersion sale. For a number of years Doctor Graham has kept a small dairy herd on his farm near Clay Center and has always found them profitable and also a source of pleasure and recreation. Owing to the fact that his professional demands more of his time, the Doctor has decided to dispose of the herd.

The annual meeting of the American Polled Hereford Breeders' Association for the election of officers and the transaction of such other business as may come before it will be held at Des Moines, Iowa, Monday evening, February 7. The session will convene at 7:30 in the rooms of the Chamber of Commerce, Sixth and Walnut Streets. The Chamber of Commerce has granted the free use of its club rooms to those interested parties whether breeders of Polled Herefords or not, and all stockmen are invited and urged to attend. General discussion of the best interests of the breed will be in order and a big, enthusiastic gathering is planned.

The high character of the public sales of Guernseys is worthy of commendation. The demand for Guernseys at private sale has been so heavy for the last few years that there have been commission dealer's standpoint. The Guernsey interests have fortunately not had a great deal of the speculative spirit shown in their sales. The Guernsey appeals to a class of progressive dairymen who are seeking animals to produce a high class of products for a strictly select trade or consumption. So long as this spirit remains, the admirers of the breed are justified in feeling that the future of the Guernsey cow is being built on a firm foundation, and plenty of evidence now at hand indicates that she is fast reaching a position which her merits deserve for her name, one of the leading breeds for economical production of the highest class of dairy products.

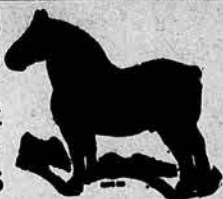
When writing advertisers, please mention KANSAS FARMER.

HORSES AND MULES.**58 Head Registered Stallions and Mares 58**

Percherons, Belgians and French Drafts, from Yearlings to Seven Years Old.

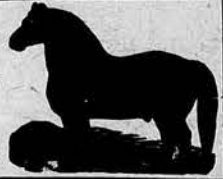
I have rented my farm and am quitting farming. Must sell all my horses by March 1. Nothing reserved. All priced reasonably—the first buyer to come will get a bargain. I mean business and must sell my entire herd. Come and see me.

J. M. NOLAN - - - - - PAOLA, KANSAS

**ROBISON'S PERCHERONS**

Forty young stallions from two to six years old. A few young mares for sale.

J. C. ROBISON, Towanda, Kans.

**LAMER'S PERCHERONS**

Have just received a new shipment. Also have a barn full of my own raising. A choice lot to select from.

WRITE, WIRE OR PHONE.

C. W. LAMER, SALINA, KANSAS

OFFICE, LAMER HOTEL.

**REGISTERED PERCHERON STUDS**

We have them, BIG FELLOWS, 1, 2, 3 and 4 years old. Real drafters, BIG BONE, lots of quality and action. Grown right, will go out and make good both as to sires and foal getters. You lose money if you don't look at BISHOP BROS.' STUDS before buying. Twenty miles east of Wichita, on Mo. Pacific Ry.

BISHOP BROS., BOX E, TOWANDA, KANSAS

**HORSES AND JACKS**

FOR SALE—Span of 6-year-old mares, ton, imported; span of 2 and 3-year-olds. All in foal and showing good to imported horse, Kossuth. Three spans of yearlings, coming two. All of the above as good as ever grown. Twenty head of two-year-old jacks, the big Missouri kind; ten head of Jennets, all bred. This stuff, for the purpose of making room, I will sell at rates to suit purchaser. Can show sire and dams of all stuff. Cash or time.

OAKLAND STOCK FARM, Box 207, CHILLICOTHE, MO.

**MAMMOTH JACKS, JENNETS and PERCHERONS**

Jacks 15 to 16½ hands standard, two to five years, very best bone and quality. Stallions, ton weight and over, with finish.

AL E. SMITH, PROPRIETOR - LAWRENCE, KANSAS

**REGISTERED JACKS and PERCHERONS**

A few tried imported black Percheron ton stallions; brilliant blood, good enough for herd headers. Twelve big black registered jacks, two to five years old, 14½ to 16 hands high, well broke and quick performers. Good herd of registered Jennets headed by large Spanish jack.

J. P. & M. H. MALONE, CHASE, KANSAS

HIGH CLASS JACKS

We offer 25 head to select from. Herd headed by Mo. Chief's Boy 6815. One imported gray Percheron stallion, first prize at Kansas State Fair. Write or phone us.

LOUIS MILLS & SON, Alden, Kan.



FOR SALE—Two extra good registered Percheron stallions. Two choice registered mares, extra large, in foal to registered stallion.

H. A. RITTER

Kiowa - - - Kansas

JACKS AND JENNETS

10 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy boned. Special prices for fall and winter sales. A few good Jennets for sale. Come and see me.

PHIL WALKER, Moline, Elk County, Kansas.

**Jacks for Sale**

I have three good young jacks for sale and worth the money. Also a few very fine Jennets.

JOHN A. EDWARDS

Englewood - - - Kansas



Registered Percheron Stallions—Nine-ton ton and 2,200-pound 4 and 5-year-olds, 34 coming 3's, 17 coming 2's. Grandsons International champion Pink. 23 registered mares for sale. Just above Kansas City. Fred Chandler Percheron Farm, Route 7, Charlton, Iowa.

JACKS FOR SALE.

Seven head of big mammoth jacks, from two to seven years old. Would take some White-Face heifers in exchange. Jacks guaranteed as represented.

PHIL HANNUM, JR. - CARTHAGE, MO.

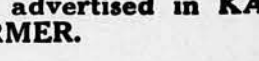
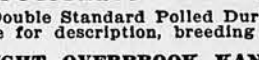
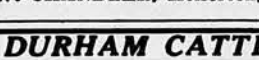
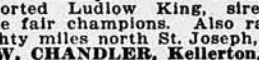
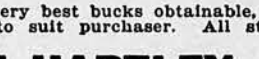
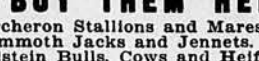
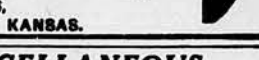
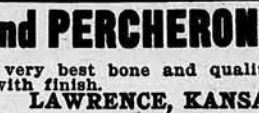
Home Phone 817 Black.

ONE HUNDRED Registered Percheron, French Draft, Belgian and Shire stallions and mares for sale cheap.

A. LATIMER WILSON, CRESTON, IOWA.

THIRTY HEAD MAMMOTH JACKS And Jennets for sale. The big kind. Priced to sell.

J. D. HOLMAN - CURRYVILLE, MO.

HORSES AND MULES.**HARRIS BROS.****90 PERCHERONS 90**

Sixty Mares and Fillies. Thirty Stallions, from weanlings to five years old. At live and lot live prices.

Route 6, GREAT BEND, KANSAS.

Send for fine photographic catalog.

DUNHAMS

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

Wayne, Dupage Co., Ill.

MISCELLANEOUS.**YOU CAN BUY THEM HERE**

Registered Percheron Stallions and Mares. Registered Mammoth Jacks and Jennets. Registered Holstein Bulls, Cows and Heifers. M. G. BIGHAM & SONS, OZAWIE, KAN. 20 Miles Northeast of Topeka.

SHROPSHIRE SHEEP**SHROPSHIRE EWES**

Bred to the very best bucks obtainable, for sale in lots to suit purchaser. All stock recorded.

L. M. HARTLEY

PINE RIDGE FARM - SALEM, IOWA

BRED EWES.

Registered Shropshires to lamb March and April. Bred to son of imported Ludlow King, sire of state fair champions. Also rams. Eighty miles north St. Joseph, Mo. C. W. CHANDLER, Kellerton, Ia.

POLLED DURHAM CATTLE.**The Profitable Breed**

For Sale—Double Standard Polled Durham Cattle. Write for description, breeding and prices.

C. M. ALBRIGHT, OVERBROOK, KANSAS

Ask your dealers for brands of goods advertised in KANSAS FARMER.

PUBLIC SALE of HOLSTEIN COWS

COUNCIL GROVE, KANSAS, FRIDAY, JANUARY 28, 1916

FORTY — CHOICE HIGH GRADE HOLSTEIN DAIRY COWS — FORTY

Some fresh, most of them due to calve after February 1, all bred to King Little Belle Korndyke 106910, a three-year-old grandson of King Walker 40358. Six two-year-old daughters of this bull in this sale, sixteen heifer calves, one two-year-old bull. Dam not registered. The cows in this sale are well marked and show true dairy type. A number of them with a record of over 10,000 pounds milk in one year.

INDEPENDENT CREAMERY COMPANY - COUNCIL GROVE, KANSAS
F. W. EDMUNDS, Agent.
C. H. WHITE, Clerk.

COL. JAS. McCULLOCH, Auctioneer.
COL. LESTER LOWE, Assistant.

HARVEY AND GOODSPEED'S

Great O. I. C. and Chester White Bred Sow Sale

AT MARYVILLE, MO., FEBRUARY 2, 1916.

FIFTEEN CHOICE TRIED SOWS
THIRTY-FIVE SPRING GILTS

Gilts are sired by such boars as Sweepstakes Giant, International Boy, Wildwood Prince and Sultan. They are bred to Sweepstakes Giant, Sunny Bar, Missouri Perfection, Show Me, and Harvest Lad.

The offering of tried sows will include noted dams of the breed such as Isabelle, Minnehaha, Rose, Beauty, Anna, Barber Girl, Aileen, Maxine, and other great producers.

Bids sent to auctioneers in our care will be fairly treated. Send for catalog at once.

J. H. HARVEY OR F. B. GOODSPEED,

MARYVILLE, MISSOURI



DUROC BRED SOW SALE

FORMOSO, KAN., JAN. 26

25 — HEAD RICHLY BRED DUROC SOWS — 25

By Crimson Defender 142579, Model A 168243, Buddy O. K. 133089, and Dreamland Col. 106175, out of richly-bred dams. Bred to Crimson Defender and Marsh Creek Col. Send for catalog. Bids sent to auctioneer in my care will be fairly treated. Entire offering is cholera immune.

R. P. WELLS, Formoso, Kansas
COL. J. A. HOWELL, AUCTIONEER.



Faulkner's Famous Spotted Polands

We are not the originator, but the preserver of the OLD ORIGINAL BIG-BONED SPOTTED POLANDS. Now booking orders for spring pigs to be shipped when weaned, pairs or trios, not akin.

Arrange to attend our ANNUAL FEBRUARY 9 BROOD SOW SALE. For information and catalog address H. L. FAULKNER, BOX K, JAMESPORT, MISSOURI



POLAND CHINAS.

Palmer's Poland Chinas

Herd headed by Sir Dudley, first in senior pig class, junior and reserve grand champion Kansas State Fair, Hutchinson. Pigs, either sex, by this boar; also sows and gilts bred to him. For prices and description write CHAS. B. PALMER, Route 5, Marion, Kan.

PERFECTION SPOTTED POLANDS

Special prices on summer boars—the old original spotted kind. Booking orders for fall pigs and gilts bred for spring farrow. Get our prices and free circular before buying elsewhere. The Ennis Stock Farm, Horine Station, Mo. (Just South of St. Louis.)

Henry's Big-Type Polands

March gilts, sired by Big Bob Wonder, Big Bone Jr., and Grand Orange. Bred or open. Also fall pigs, not related. Write me. JOHN D. HENRY - LECOMPTON, KAN.

ENOS IMMUNED POLANDS.

Fall and spring boars sired by the noted herd boars, Orphan Chief and Mastodon King. Will sell a choice lot of my herd sows and gilts bred for early spring farrow. One hundred head to pick from. Everything guaranteed immune. Write or phone. A. E. ENOS - RAMONA, KANSAS

PINE GROVE POLAND HERD

Choice big-type spring boars and gilts, a few fall gilts, by Sunflower King by King of Kansas and Major by Designer by Expansion. Tops, \$25; a few for \$20. Also a few spring gilts. N. E. COPELAND, WATERVILLE, KANSAS

FAIRVIEW POLAND CHINAS

FOR SALE—A few good heavy-boned boars. Also splendid lot of fall yearling and spring gilts, bred for March and April litters. All priced to sell. P. L. WARE & SON - PAOLA, KANSAS

POLAND CHINA BOARS AND GILTS

A few serviceable boars and bred gilts for sale. Send for my bred sow sale catalog. Sale will be held March 1 at Dearborn, Mo., on electric line out of St. Joseph. Write CLARENCE DEAN, R. D., WESTON, MO.

ARKELL'S POLANDS.

Choice Fall Yearlings and Spring Gilts. Yearlings by Longfellow Again, bred to Chief Big Bone. Spring gilts by Chief Big Bone, bred to Longfellow Again. Priced for quick sale. JAMES ARKELL, R. 4, Junction City, Kan.

SCHNEIDER'S BIG-TYPE POLANDS.

Extra good boars, serviceable age, sired by Referendum 2d out of choice dams. Priced to sell. Joe Schneider, Nortonville, Kan.

SPOTTED POLAND CHINAS

June and July farrow. Pairs or trios. Not akin. Recorded pedigree with each hog. GEO. HENRY, JAMESTOWN, IND.

LONE CEDAR POLANDS

Cholera immune. Up-to-date large-type breeding. Some good March and April boars. Gilts bred or open. Also young tried sows bred. Bargain prices. A. A. MEYER - McLOUTH, KAN.

LANGFORD'S SPOTTED POLANDS.

Choice fall boars. Also boars for service. Must sell. T. T. Langford & Sons, Jamesport, Mo.

OLD ORIGINAL SPOTTED POLANDS.

Spring boars, fall pigs, bred sows. Bargains. A. S. Alexander, Route 2, Burlington, Kan.

FARM AND HERD.

At the annual meeting of the Standard Poland China Record Association held at Maryville, Mo., January 4 and 5, the association's handsome new building was dedicated with appropriate ceremonies. The resolution changing the terms of the directors from one to three years and making the number of members of the board nine instead of seven was adopted. The following were elected to serve the association as directors: W. B. Gex, Graham, Mo.; John Roll, Colo. Iowa; and T. J. Melner, Sabetha, Kan., for three years; W. A. Baker, Butler, Mo.; J. C. Meese, Ord, Neb., and L. R. McClarnon, Braddyville, Iowa, for two years; and J. P. Bennett, Lee's Summit, Mo.; Thomas A. Shattuck, Hastings, Neb., and H. C. Lookabaugh, Watonga, Okla., one year each. H. B. Walter, of Ewingham, Kan., was elected president of the association for the ensuing year, and Ray Davis and C. D. Bellows were reappointed by the board to serve the coming year as secretary and treasurer respectively.

Readers of Kansas Farmer who are interested in feeding stock should each have a copy of the new edition of Henry Morrison's "Feeds and Feeding," which Kansas Farmer has made arrangements to furnish in connection with subscriptions to Kansas Farmer. A copy of this book in the hands of anyone feeding stock will pay for itself many times over. This book by Prof. A. W. Henry, of the Wisconsin College of Agriculture, was first published in 1898. It passed through nine editions by 1910 and has just been revised and rewritten, containing much that is new and important on the feeding of stock. The present is the fifteenth edition and is greatly enlarged, and Prof. F. B. Morrison is joint author with Mr. Henry. The book is a large one, 6 x 9 inches, with 690 pages, and weighs 2 1/2 pounds. It covers practically every conceivable phase of stock feeding and is so arranged that one can quickly find any information desired. The new chapter, "Economy in Feeding Stock," is worth the price of the book alone. No other one agricultural book can be made more generally useful. The regular price, postpaid, is \$2.25. In order to encourage as many of our readers as possible to secure this most valuable book, Kansas Farmer has just made arrangements with the publishers whereby we can send a cloth bound volume postpaid to any address for a remittance of only \$2.50 for a two-year subscription to Kansas Farmer and the book, or one new and one old renewal subscription and the book. Send all orders to Kansas Farmer, Topeka, Kan.

When Writing to Advertisers, Please Mention Kansas Farmer.

HOLSTEIN CATTLE.

OLATHE, KAN., on the HOLSTEIN MAP

Located Twenty-five Miles Southwest of Kansas City, Mo. Electric Car Every Hour (Strang Line); Also on the Santa Fe, Frisco, K. C. C. & S. Railways. I have opened a branch at Olathe. The first shipment of Holstein grade cows, heifers and registered bulls will arrive at my barns at south edge of town on Kansas Avenue by January 20. New consignments every week thereafter. You may now get high-class Holsteins in numbers to suit at the same prices prevailing in Wisconsin and Minnesota, with freight only added. Guernseys or Shorthorns will be supplied if in demand. Address PAUL E. JOHNSON, SOUTH ST. PAUL, MINNESOTA, OR OLATHE, KANSAS.

CLYDE GIROD—At the Farm.

HOLSTEIN FRESIAN FARM

M. M. MERCEDES PIETERTJE HOMESTEAD 158587 AT HEAD OF HERD. Pure-bred and high-grade Holsteins, all ages. Large selection, 225 head to choose from. One hundred fifty springing cows and heifers, all the right type, in calf to pure-bred bulls strong in the blood of the best milking strains, to freshen soon, as well as fresh cows on hand. Our pure-bred heifers are choice, some with A. R. O. records under three years of age. Fifteen pure-bred bulls, ages 6 to 24 months, all out of A. R. O. dams and from record sires. Bring your dairy expert—the better informed the better to please. Write or wire your wants.

GIROD & ROBISON, Towanda, Kansas

F. W. ROBISON—At Towanda State Bank.

260 - HOLSTEIN COWS AND HEIFERS - 260

If you want Holstein cows, springers or bred heifers, see my herd. I have them. They are very large, good markings, out of the best milking strains, bred to pure-bred bulls of the very best blood. Special prices on carload lots. Want to reduce my herd and will make bargain prices for thirty days.

J. C. ROBISON

TOWANDA, KANSAS



TORREY'S HOLSTEIN HEIFERS

High-grade Holstein heifers in single lots or car loads. Prices reasonable. Write, wire or phone.

O. E. TORREY

TOWANDA, KANSAS

HOME FARM HOLSTEINS

OFFER HEIFER CALVES

Five months up to 15 months; grand-daughters of De Kol Burke, Fobes Tritonia Mutual De Kol and Walker Korn-dyke Segs. Official record and untested dams. Prices, \$95 to \$325.

W. B. BARNEY & SONS, Chapin, Iowa.

Regier's Holsteins

FOR SALE—Holstein-Friesian A. R. O. bulls. One A. R. O. 15.78 pounds butter cow, gave 12,386 pounds milk in 292 days, will be fresh December. Price, \$275.

G. Regier & Sons

WHITEWATER - KANSAS

IN MISSOURI

Eight bulls, 2 to 8 months, \$100 to \$175 each. Always have a few good cows and bred heifers for sale. Nothing but registered Holsteins.

S. W. COOKE & SON, MAYSVILLE, MO.

SUNFLOWER HERD

Prince Artis Pontiac Abbecker No. 136382 heads Sunflower Herd. Only 30-pound bull in Kansas. Buy where the best breeding, best producers come from.

F. J. SEARLE, OSKALOOSA, KANSAS. (Several bulls ready for service.)

BUTTER BRED HOLSTEINS

Registered bull calves. Prices reasonable. Write today. These bargains will not last long.

J. P. MAST, SCRANTON, KAN.

REGISTERED HOLSTEINS

For Sale—Choice young bulls, also a few females. Have bred Holsteins 35 years on the same farm. Come and see our herd.

M. E. MOORE & CO., CAMERON, MO.

Bonnie Brae Holsteins

Ninety head of high-grade heifers and young cows. Some fresh now. Many heavy springers. Heifer calves. Registered bulls from 7 to 14 months of age.

IRA ROMIG, STATION B, TOPEKA, KAN.

Golden Belt Holstein Herd

Canary Butter Boy King No. 70508

Herd has won more prizes from Holstein-Friesian Association for yearly production than any herd in Kansas. Young bulls for sale from heavy producing cows.

W. E. BENTLEY, MANHATTAN, KANSAS

FOR QUICK SALE

Fifty head of highly-bred registered Holstein-Friesian cows and heifers; good ages and good producers. Several bulls from calves up to yearlings. Ready for service.

HIGGINBOTHAM BROS., Rossville, Kansas

CHOICE HOLSTEIN BULLS

Four registered bulls, out of A. R. O. cows. Two ready for service. Best breeding. Choice individuals.

BEN SCHNEIDER, NORTONVILLE, KAN.

EWING'S HOLSTEINS

Watch this space in future issues for something good in Holsteins.

T. M. EWING, INDEPENDENCE, KANSAS

BRAEBURN HOLSTEINS

Product of twenty years breeding. Write me for a good bull calf. Two ready to use.

H. B. COWLES, 608 Kansas Ave., Topeka, Kan.

Did You Know that the Dam of Iowana De Cola Walker, who heads

TREDICO FARM HERD

Made 812.25 pounds of butter from 18,047.0 pounds of milk?

TREDICO FARM, Route 44, Kingman, Kan.

FINE HOLSTEIN CALVES from heavy milkers, \$20 each. Registered yearling bull, \$85. Edgewood Farm, R. 3, Whitewater, Wis.

WHEN WRITING ADVERTISERS, MENTION KANSAS FARMER

HOLSTEIN CATTLE.



Purebred Registered HOLSTEIN CATTLE

A Holstein owner's assets. When a man buys a purebred Holstein-Friesian animal he acquires more than flesh and blood as property. Something more than size, weight and individuality, breeding and the highest standard of productiveness. He shares the beneficial influence of the Holstein-Friesian Association, its financial soundness, its mighty prestige, its progressive exploitation, its annual prize offerings of \$22,000 and its effective \$25,000 prize. It is this combine to make a wonderful asset. It is this truthful exploitation of the foremost dairy cattle, together with their genuine merit which has since 1908 raised the average auction price of Holstein cattle by \$105 per head. Investigate the big "Black-and-White." Send for FREE Illustrated Descriptive Booklets. The Holstein-Friesian Association of America F. L. Houghton, Sec'y Box 114, Brattleboro, Vt.

RED POLLED CATTLE.

RED POLLED BULLS

TWENTY yearling bulls, big rugged fellows, sired by ton sires; all registered and priced reasonably. Will sell a few females. E. E. FRIZELL, Frizell, Pawnee Co., Kan.

Coburn Herd Red Polled Cattle

AND PERCHERON HORSES. A few choice bulls. Eight extra good two-year-old stallions for sale at reasonable prices. MAHLON GROENMILLER, Pomona, Kan.

RED POLLED CATTLE

FOR SALE—1915 bull calves by Rose's Grand Champion 17998, a 2,400-pound bull; also a few good cows and heifers.

AULD BROTHERS, FRANKFORT, KAN.

RED POLLED CATTLE.

For Sale—Eight choice young bulls from 7 to 11 months old.

I. W. FOULTON - MEDORA, KANSAS

AYRSHIRE CATTLE.

CHOICE AYRSHIRE BULL CALVES

One born September 7, 1915, nearly white; one born September 30, 1915, grandson of world's champion, two years old. Priced worth the money.

H. H. HOFFMAN, Route 6, Abilene, Kansas.

HAMPSHIRE HOGS

ATTEBERRY'S HAMPSHIRE

Choice breeding. Bred sows and gilts. Outstanding boars. Priced to sell quick.

ATTEBERRY & SON - LANCASTER, MO.

IMMUNE HAMPSHIRE

Choice gilts, bred or open, with size, finish and prolific qualities. Louis J. Paulsen, Cordova, Neb.

BERKSHIRE HOGS.



BIG-TYPE BERKSHIRES FOR SALE

Sired by grand champion boars of Illinois and Missouri State Fairs. Also S. C. Black Minorca chickens. J. V. FISH, Route 7, Bolivar, Mo.



NASH'S BERKSHIRES

Choice bred gilts from \$25 to \$35. Bred to two first prize state winners. Choice fall pigs ready to go at \$25 per pair.

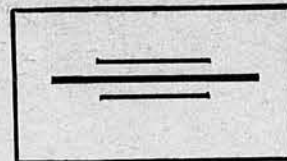
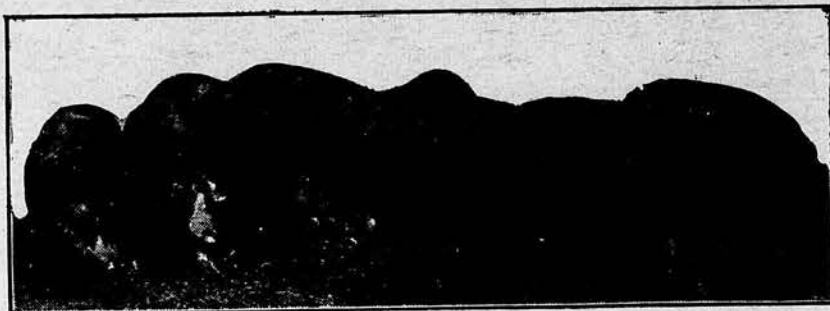
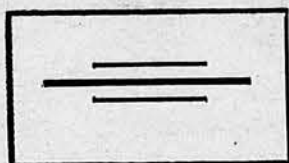
C. G. NASH, ESKRIDGE, KAN.

FARM AND HERD.

The applications for catalogs indicate unusual interest in the Poland China bred sow sale to be held by Fred B. Caldwell at Howard, Kan., February 5. Mr. Caldwell has the type and breeding that are popular and profitable and his fall sale was one of the best held during the season. Some of Iowa's best big-type herds are represented in his herd. Last fall he purchased from the H. B. Walter herd the great young boar, Caldwell's Big Bob, one of the highest priced boars sold in this state last fall. A number of the best sows in this sale will be bred to this outstanding young boar.

CALDWELL'S POLAND CHINA BRED SOW SALE

—AT HOWARD, KANSAS, FEBRUARY 5, 1916—
45 - HEAD CHOICE BIG TYPE SOWS - 45



Sixteen tried sows by Expansion, Bell Metal, Big Chief and M's Giant Wonder.
Twenty yearling sows, seventeen of them by Elkmore Jumbo.
Nine spring gilts by Elkmore Jumbo and one by Big Bob Wonder.
Fourteen of these sows will be bred to Orphan Boy by Big Orphan.
Twelve will be bred to O U Wonder, a grandson of old A Wonder.
Fifteen will be bred to Caldwell's Big Bob by Big Bob Wonder. I paid \$250 for this fine boar at H. B. Walter's fall sale and he is said to be the best boar sold in Kansas last fall. Come to my sale, look him over, then be your own judge.

I guarantee a good offering of brood sows. If for any reason you cannot attend my sale, send your order to auctioneer or fieldmen. O. W. Devine will represent Kansas Farmer at sale. Everyone will be made comfortable in a heated pavilion. I have no breeders' list, so please send your name early for catalog. I want you to read it.

FRED B. CALDWELL, Howard, Elk County, Kansas

AUCTIONEERS: R. L. HARRIMAN, A. M. BOONE.

FARM AND HERD.

The Independent Creamery Company, of Council Grove, Kan., has announced a public sale of Holstein dairy cows to be held at the dairy farm at Council Grove on January 28. They will offer forty head of choice high-grade dairy cows. Some of them are fresh, but most of them will be fresh after February 1. All are bred to King Little Walker, a grandson of King Walker. Many of the cows in this sale have records of over 10,000 pounds of milk in one year.

T. T. Langford, of Jamesport, Mo., well known breeders of Spotted Polands, write that their herd is doing well and that their young stock is growing out fine. They have the big, easy-feeding type of Spotted Polands that mature early to a good weight. Since their herd was established, they have fed Spotted Polands extensively for market and have always found them profitable. A feature of their herd at this time is the fine lot of young stock, including outstanding early fall boars and boars ready for service.

E. J. Guilbert, of Wallace, Kan., has just purchased 260 head of registered Galloways from G. E. Clark, of Topeka, and is getting among them the great sires, Meadow Lawn Medalist Casino and the imported bull Novelist. With his already large herd of registered Galloways, this addition is making his the largest and one of the best Galloway herds in the state.

F. C. Crocker, of Filley, Neb., a leading Duroc breeder of that state, writes that his herd is doing fine. Mr. Crocker has built up a herd of utility Durocs by years of breeding along scientific lines and he has the type that produces profit. This year he has selected over a hundred gilts of the real brood sow type and bred them to his great herd boars for spring farrow. The breeding of Top Notcher Again, grand champion Illinois and Indiana, 1903; Hogate's Model, grand champion Nebraska 1906; Kruger Lad, first at Iowa 1907; Vanquisher, the Nebraska winner; Belle's Valley Chief, first Nebraska 1910; Top Notcher Chief, junior champion world's fair, St. Louis; Buck's Boy; Crocker's Ohio Chief; LaFollete's Last, the Iowa winner, and

MEDORA, KANSAS, January 1, 1916.

KANSAS FARMER, Live Stock Department,
Topeka, Kansas.

GENTLEMEN.—Please start my Red Polled Cattle card again. I have used the columns of KANSAS FARMER the past fourteen years to sell my surplus stock and it has given me good service.
I. W. POULTON.

Phil Hannum, of Carthage, is one of Missouri's successful breeders of high-class jacks and owns one of the good herds in that state. A feature of his herd at this time is a choice lot of young jacks from two to seven years old.

W. S., J. B. and B. Dunham, of Wayne, Illinois, the well known Percheron importers and breeders, have issued a very fine photographic catalog containing the breeding and description of a large number of their imported and home-bred Percheron stallions and mares. This is one of the greatest importing and breeding establishments in existence. It was founded in 1866 by M. W. Dunham and has for many years been recognized as headquarters for high-class Percherons.

Enclosed find check for poultry ad. I will commence again in about two weeks. Have had an ad in Kansas Farmer for almost a year and I thank you very much for the benefits I have received from the advertising. —MRS. EFFIE ACHESON, Falco, Kan., January 4, 1916.

The catalogs are out for Carl Miller's annual sale of registered Herefords at Wamego, Kan., January 22. The offering consists of thirty yearling and two-year-old bulls and thirty choice two-year-old heifers bred to good herd bulls. Such bulls as Beau Mystic 39th, Beau Belton and Hill's Pride are strongly represented. Mr. Miller is one of the successful breeders of Hereford cattle and has found them the best money makers of any class of live stock on his farm. He will have a very useful offering for this sale.

Dusty Critic, sire of the grand champion Critic B, is a combination of winning blood lines rarely found in one herd.

We have just received Volume 49 of the National Duroc Jersey record. This volume contains pedigrees of males from No. 176101 to 183599 and the pedigrees of females from No. 445300 to 464598; also a list of the members of the association and other information valuable to Duroc breeders.

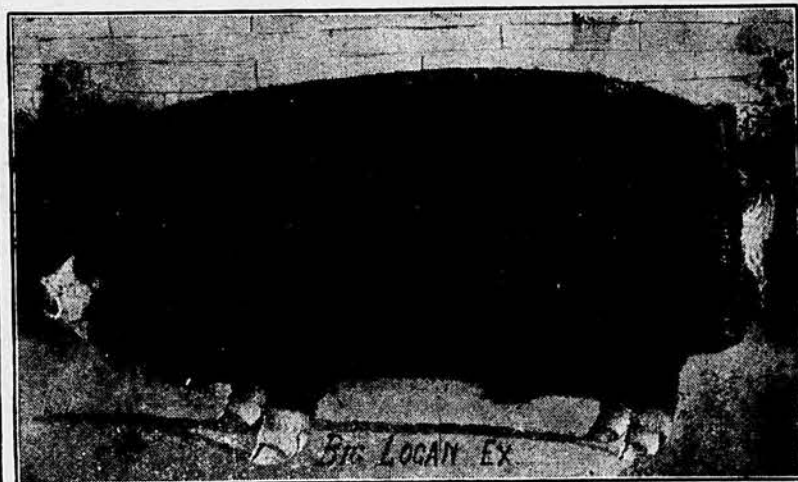
H. H. Hoffman, of Abilene, Kan., is succeeding as a breeder of pure-bred Ayrshire cattle. Mr. Hoffman has a herd of this excellent dairy breed and they are proving to be profit producers. He has some very fine young stock in his herd at this time, including some outstanding young bulls.

I. W. Poulton, owner of one of the best herds of Red Polled cattle in Kansas, writes that his herd has done extra well this year. Mr. Poulton has succeeded in building up a herd of this popular dual-purpose breed that is producing a good profit every year. He reports a splendid demand for Red Polled breeding stock at very satisfactory prices. The breeding of his herd is of the best, and at this time he has a choice lot of well-grown young stock, including a number of choice young bulls.

C. E. Hill, of Toronto, Kan., is making good with a herd of pure-bred Shorthorns and has found that pure-bred beef cattle are the most profitable. The breeding of Mr. Hill's herd is of the best, and he has the real beef type. A feature of his herd is the choice young stock, including some outstanding young bulls.

L. V. O'KEEFE'S POLAND CHINA SALE

AT FARM NEAR STILWELL, KANS.
TUESDAY, FEBRUARY 8, 1916

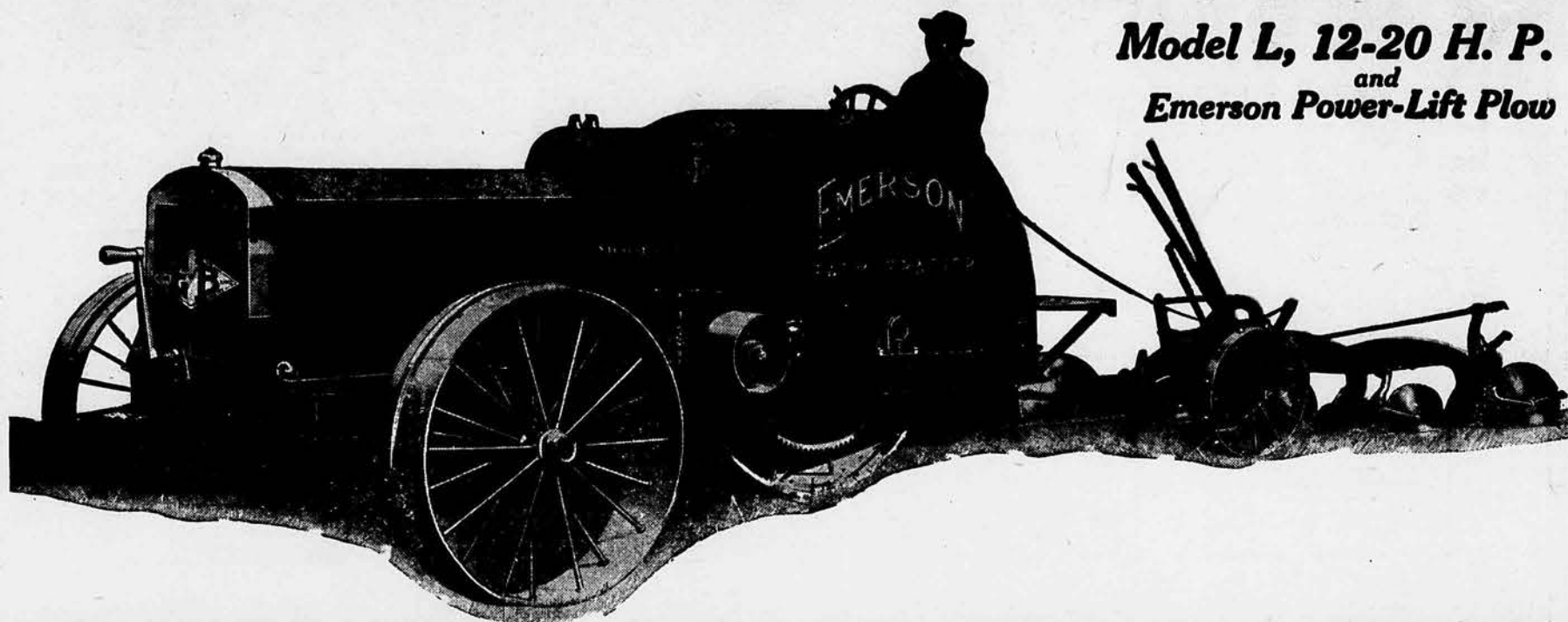


Thirty-three head large fall yearling gilts, ten tried sows, three spring gilts, bred for March and April farrow to A. King, Big Logan Ex, Wedd's Long King, and Sterling Prince, four big-type boars that are proven sires of large even litters. This will be the best offering I have ever sold. Every one is a good one.

Please send for catalog and arrange to come to my sale. O. W. Devine will represent Kansas Farmer at sale. All bids sent in his care will be honestly handled. Catalogs are ready to mail. Send your name early to

L. V. O'KEEFE, Stilwell, Kansas

AUCTIONEERS—COL. R. L. HARRIMAN, COL. CALAHAN.



Model L, 12-20 H. P.
and
Emerson Power-Lift Plow

The EMERSON

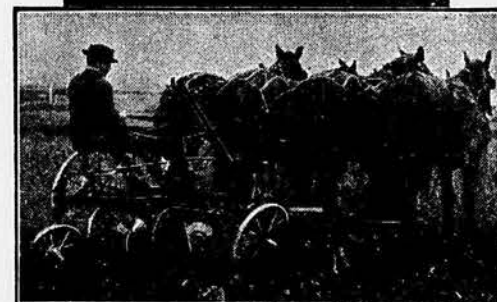
AN IDEAL TRACTOR FOR SMALL AND LARGE FARMS



E-B Standard Mower



No. 4 Geiser Thresher



Emerson Foot-Lift Plow



E-B Grain Drill

THE Emerson Model L Farm Tractor is the development of many years' experience in the manufacture of tractors and long familiarity with their practical requirements. It is built for continuous hard service on farms of every size.

12 H. P. Draw Bar—20 on belt. 4 cylinders—2 speeds. All working parts perfectly lubricated, thoroughly protected from dust and easily accessible. Equipped with Hyatt Roller Bearings. Cut Steel Gears in dust-proof oil bath. Light weight—economical of fuel—so simple anyone can run it.

Will pull the implements you now have on your farm, such as gang plows, harrows, mowers, binders, manure spreaders, wagons, drags and small road graders. Will operate your ensilage cutter, feed grinder, small separator, circular saw, water pump, hay baler—all your belt-driven machinery. Write today for free folder illustrated in colors.

Emerson-Brantingham Implement Co., Inc.

Good Farm Machinery Established 1852
311 So. Iron St., Rockford, Ill.



The E-B Trade-mark, which is placed on every article in our line, is your guaranty of quality. It shows the way to easier, better and more profitable farming.



Newton Wagon

Emerson-Brantingham Implement Co., Inc.
311 So. Iron Street, Rockford, Illinois

Please send literature on articles checked.

- | | | |
|---|---|---|
| ☐ Tractor Model L | ☐ Drills | ☐ Listers |
| ☐ Tractor Big Four | ☐ Planters | ☐ Manure Spreaders |
| ☐ Plows | ☐ Mowers | ☐ Wagons |
| ☐ Harrows | ☐ Hay Rakes | ☐ Buggies |
| ☐ Cultivators | ☐ Hay Loaders | ☐ Auto Trailers |
| ☐ Gas Engines | ☐ Hay Presses | ☐ Road Rollers |
| ☐ Saw Mills | ☐ Clover Hullers | ☐ Steam Traction Engines |
| ☐ Threshers | ☐ Corn Shellers | |

Name.....

Town.....

R. F. D. Route.....

State.....