

KANSAS FARMER

FOR THE IMPROVEMENT  OF THE FARM AND HOME

Volume 49, Number 48. TOPEKA, KANSAS, DECEMBER 2, 1911. Established 1863. \$1 a Year

THE primal necessity of the first Anglo-Saxon, with awny face and skin-clad frame, was war—war with the elements, with nature, with man—and Woden was also the god of roads and boundaries.

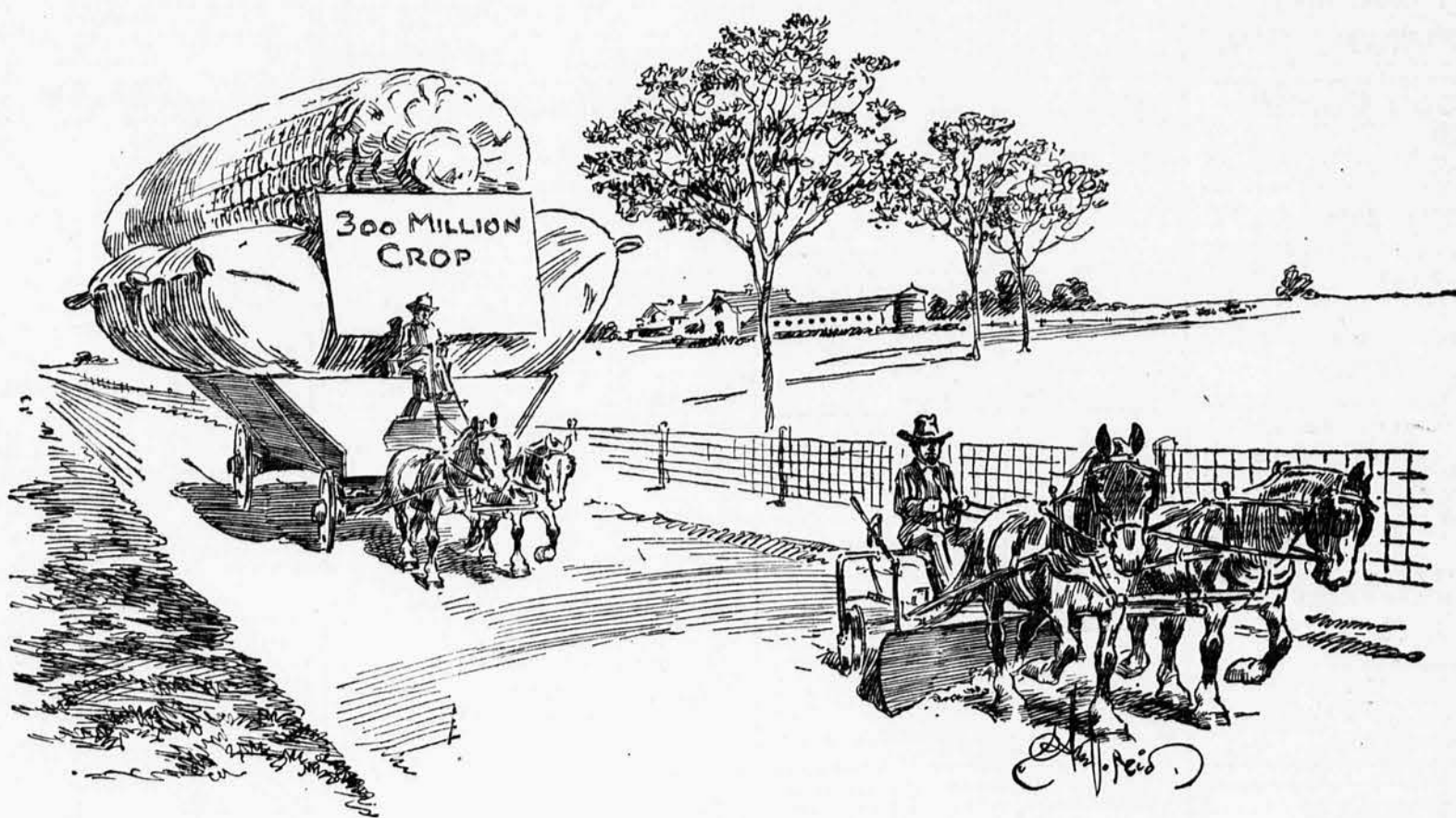
The necessity still exists and Woden's duties do not change.

The Kansas farmer, with his three hundred million dollar crops to move each year, finds his battles harder, his expenses greater and his living more costly because he can only sell when the roads are good and then on a congested market.

Nature is as absolute as her Author, and her conquest in this matter is made with a modern road drag.

Let us mend our ways.

—I. D. G.



Prosperity Follows The Drag



KANSAS FARMER

EDITORIAL



THE CORN CROP.

Of the eight states producing surplus yields of corn, Illinois stands at the head with 338,432,000 bushels, or an average of 32 bushels per acre. Iowa comes second with a smaller acreage but with an average of 35 bushels per acre. Nebraska stands third in quantity, though her yield was only 22 bushels per acre. Indiana, with but little more than half the acreage of Illinois, is fourth in rank but with an average of 35 bushels. Missouri gets fifth place in quantity and averages 25 bushels per acre. Ohio has sixth place for quantity, but averages 36 bushels per acre, which is the highest of any. Kansas stands seventh with an average of 16 bushels, and Texas eighth with 15 bushels per acre to her credit.

While the volume of crop is of vast importance it will be seen that this depends, in too many cases, upon the average and not upon the yield per acre. Volume influences the markets and determines the larger feeding operations, but yield per acre is that on which the individual farmer makes his money.

During the last six years Ohio has averaged 36 bushels per acre for the entire state, with a top yield of 42 bushels for 1906 and 40 bushels for 1909. By comparison, Kansas has averaged 21 1/2 bushels per acre for the same six years, with a top yield of 29 bushels for 1906 and 19 bushels for 1909.

Ohio was admitted to the Union in 1802 and was 59 years old when Kansas was born. More than two generations of farmers had lived and died in that state before this one existed. The figures given for Ohio show well for that state and indicate that, in her century-old experience, the farmers have not seriously depleted the fertility of their corn fields.

The figures given for the Kansas yield are hardly fair to Kansas, and they create a totally wrong impression. In compiling these figures, the whole of the corn acreage of the state is included, and this is divided into the total yield to get the average. The eastern one-third of Kansas is a corn country in which there are few better. The middle section of the state is a wheat region which will, of course, grow more or less corn, while the western portion of the state is a Kafir corn, alfalfa and grass country, with too much altitude for the corn plant. Corn is planted in every county in Kansas every year in spite of the fact that much of its territory is unsuited to that plant, and the farmers do not expect regular yields.

This natural division of Kansas into a corn belt, a wheat belt and a grass belt is what makes her great as a producer. Some kinds of crops are always produced in abundance, regardless of weather conditions, but it is manifestly unfair to include the acreage which is planted to experimental corn in the grass belt in the averages for the whole state.

Ohio has only 41,060 square miles of territory, which is all in the corn belt. Kansas has 87,080 square miles, only half of which is strictly in the corn belt.

Now, if we compare the eastern half of Kansas, which is the same size as the state of Ohio, with that state we shall find a very different showing so far as the corn crop is concerned, and still have the wheat, alfalfa, Kafir and grass from another territory as large.

We need to produce more bushels per acre for all that.

Whether dynamite will solve the drainage problem by breaking up the subsoil or not, there seems to be no question as to its value in digging open ditches and drains and in doing it quickly. The United States Department of Agriculture reports success in its recent experiments in digging open ditches with dynamite, and recommends its use for ditches that are not too large, such as would be needed in marsh or timber land. With a small auger prepared for the purpose the train of dynamite can be laid to the required depth and, if connected up with an electrical discharging apparatus, can be discharged all at once and the ditch made in an instant. Boring the holes and placing the dynamite is all the labor required, as no cleaning out of the ditch is necessary after the explosion. The water will do that. The cost is small, and thus it is possible for a farmer to dig a necessary drain in a half day that has been a source of concern for years.

With which is combined FARMER'S ADVOCATE, established 1877.
Published weekly at 625 Jackson St., Topeka, Kan., by the KANSAS FARMER COMPANY.
ALBERT T. REID, President. J. R. MULVANE, Treasurer. S. H. PITCHER, Secretary.
Edited by T. A. BORMAN and I. D. GRAHAM.
CHICAGO OFFICE—First National Bank Bldg., Geo. W. Herbert, Manager.
NEW YORK OFFICE—41 Park Row, Wallace C. Richardson, Inc., Manager.
Entered at the Topeka, Kansas, postoffice as second class matter.

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

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

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

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

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

KANSAS FARMER COMPANY, TOPEKA, KANSAS.

THE STATE GRANGE.

The annual meeting of the Kansas State Grange will be held in Topeka on December 12, 13 and 14.

This will be a great state gathering of the men and women who, being farmers themselves, have always stood for the best there is in farming and the farm home. More of progress in the betterment of farm conditions and the development of real interest in the farmer's occupation as one of the first and most important of human vocations has come through the work of the grange than by means of any other single agency.

Delegates and members from all over the state will be present, but it is expected that Shawnee county, with its nine active granges and 1,800 members, will make the greatest use of the occasion.

Every member who has taken the fourth degree is entitled to a seat in the State Grange and to participate in the discussions, and it is hoped that every member in Shawnee county will come and give welcome to the visiting members.

If the local grange has done good in the home community, surely the state grange will bring good to the state at large. It is the duty, and should be the pleasure, of every member in Shawnee county to be present at the state grange.

The presence of every member is needed to welcome the visitors, to take part in the proceedings and to plan large things for the future of the Order.

Baking powder is composed of a cooking soda to which is added an acid like alum, cream of tartar or calcium phosphate, together with a filler in the form of finely pulverized starch. If soda and any acid are mixed together and water added, there will develop a considerable amount of gas, and this is what causes the bread to "raise." Of the above substances alum will develop the greatest amount of gas, and, when the housewife uses an alum baking powder, she is likely to feel that it is an excellent one because the bread raises so well. Alum is, however, a distinctly dangerous chemical to be taken internally, and should never be used, at least for any length of time. Cream of tartar is the best substance, but is by far the most expensive and has the least gas-producing power. It is wholesome and the added cost should not be considered when health is at stake.

AMERICAN POTASH.

Some recent discoveries of Potassium-bearing rocks by the experts of the United States Geological Survey have given rise to an attempt, on the part of certain parties, to sell lands which are said to bear "potash ore."

The government reports plainly showed that the potash bearing rocks which were discovered were not available for the manufacture of commercial fertilizer, and the reasons were given.

The greatest known beds of potash which are available for fertilizing purposes are found in Germany, and their product is imported in ship loads each year. America has no great supply of such material for this purpose.

THE DEMONSTRATION TRAIN.

It seems to be difficult for some people to grasp the idea which lies behind the special educational and demonstration trains which are run over the railroads of the country at such short intervals during the institute season; as expressed by a very intelligent farmer, but one who had never seen such a train, there seems to be some ulterior motive behind it all. These people cannot understand how a railroad company can afford to expend \$1,000 a week for the purpose of providing free lectures and demonstrations to the people along their lines. There is no graft or fraud about it. It is a straightforward business proposition.

If the railroads can induce the farmers to grow larger crops, it means more business for the railroads, and they can well afford to spend a little time and money in showing these farmers how to make money for themselves.

For the same reason, the railroad land agents cannot afford to sell their lands to incompetents who cannot make them productive, nor to sell their lands at too high a price, which would make their development slow or unprofitable.

No business interest in the country employs brighter men than do the railroads, and one of the brightest ideas which these men have evolved has been that which is embodied in the free demonstration train—the "school on wheels."

ALFALFA DOES NOT ENRICH SOIL.

At the American Dairy Institute recently held in connection with the National Dairy Show in Chicago, Dr. Hopkins of the Illinois station made a statement that will probably prove surprising to many Kansans. The Doctor stated that it is a mistaken idea that alfalfa enriches the soil.

"Large yields require a great amount of fertility and will impoverish the soil very rapidly unless fed to live stock and returned to the soil. The idea that alfalfa enriches the soil probably comes from the fact that in many instances the soils have been growing large crops for many years and the crops following alfalfa do better than those following non-leguminous crops. This is due to the fact that alfalfa extends its roots many feet into the ground, utilizing the fertility not reached by the roots of other plants, and putting the soil in good physical condition." What do our old-time alfalfa growers say to that?

There has long been a question about whether alfalfa would enrich the soil or whether it is merely a stimulant, and no one, even in the experiment stations of the west, seemed able or willing to answer.

This statement of Dr. Hopkins puts a new face on the matter and may lead to a new line of investigation.

The United States produced 42,000 barrels of Portland cement in 1880, and it was worth \$3 per barrel. In 1910 the product was 76,549,951 barrels, worth an average of 89 cents per barrel. Last year we exported 2,475,957 barrels and used the balance that we made and imported 306,863 barrels, beside. The capital invested in the cement business is exceeded only by coal and iron.

AS THE FARMER SEES IT.

The officials of a farmers' institute up in Iowa sent out a large number of inquiries to both farmers and the residents of country towns in the hope that they might gain useful information which would give a better understanding and promote a closer union of interests between the two classes of citizens.

The townspeople reported that the average cost of living for a family of five was \$555 for necessities and \$55 for luxuries. The farmers reported the average cost of living for a family of five to be \$501.25 for necessities and \$39.62 for luxuries. Seventy-two per cent of these farmers say they do not work harder or longer hours than do townspeople, and 28 per cent think they do. Nearly 72 per cent of the farmers say that the small farm will yield a larger interest on money invested, while the other 28 per cent think the large farm pays best.

Eighty-seven per cent of these farmers sell for cash, and 59 per cent buy on credit. A little more than 61 per cent of them pay interest, and about 24 per cent receive interest on investments.

As to what becomes of the profits of the farm there seemed to be a general opinion among the farmers themselves that much of it is lost in scrub stock, neglected implements, borrowed money and luxuries.

These farmers were asked how they could reduce the cost of producing farm products without reducing the purchasing power of the consumers or the profits of the farmer, and they answered, "by preventing unnecessary loss of time and energy, by dropping out the least profitable crops, and by concentrating on those producing the largest profits."

When asked what is the greatest question demanding solution of both town and country, the merchants replied: "How to divide the profits on farm products so as to keep both town and country—co-operation." They further stated that the average merchant has from one-third to one-half his stock in the hands of his customers on credit and cannot get cash for it.

The farmers replied to the same question by reporting, very generally, that it is identical with that of the merchants and the greatest problems that confront the farmers alone are how to eliminate crops that lose money or fail to produce a profit; how to get efficient hired help; how to get rid of high taxes, and how to organize.

COUNTY FAIR SECRETARIES.

The first annual meeting of the Kansas State Association of County Fair Secretaries will be held during Farmers' Week in Topeka.

This meeting will occur during the week devoted to the Kansas Improved Stock Breeders' Association, the Kansas State Board of Agriculture and other farmers' meetings, and will begin on January 8, next.

In every state where such an organization has been effected, great good has resulted to the farming and live stock interests through the marked improvement in the county fairs.

Questions of the arrangement of circuits, uniformity in classifications of live stock and other premiums, the kind of attractions, shows which shall be admitted and the better enforcement of the laws governing such expositions, will be up for discussion.

There will be present at least two secretaries of state fairs, who will give of their experience for the benefit of the members, and others have been invited.

This time has been selected in order that the members may have opportunity to attend the two most important agricultural meetings of the year and mingle with the men who make the exhibits.

The ordinary farmer gives far more attention to the health of his live stock than he does to that of himself and family, and yet the health of the people has a distinct money value.

Some one has estimated that a boy who casts his first vote has actually cost and is worth \$2,000 in money, and that the annual loss in this country from preventable disease and death is approximately \$500,000,000 simply because people do not know how to apply the ordinary rules of health. Some of the agricultural colleges are providing courses of lectures on everyday hygiene, and possibly this may prove to be one of the most valuable subjects taught.

Size of Farms For General Farming

Medium Size More Profitable than Either Too Large or Too Small

By G. F. WARREN

One of the most striking results of the agricultural survey work which we have been doing in New York is the positive way in which the size of business has affected profits. In this work we have found the year's profits on about 1,500 farms in two counties that are quite different in type, yet the conclusions on nearly all points agree.

The size of business is one of the most important factors for success in agriculture. This size is approximately measured by the number of acres, when dealing with any given type of farming. There were some celery, lettuce and onion farms on muck land. Ten acres of such land represents as large a business as 100 acres of land devoted to general farming. The following results are for hay, grain, potato, stock and dairy farms:

In one county the average owner, with less than 61 acres, made considerably less than hired men received. The average farmer with 61 to 100 acres made about the same as hired men. Those with over 100 acres averaged much better than farm wages.

There is much discussion about farms being too large. Many persons who are not engaged in farming, and some farmers, believe that smaller farms would be better. All the figures that we have secured from these two counties, as well as figures from 178 farms scattered about the state, indicate that the larger farms are more efficient.

The fundamental cause for this change is the change from hand labor to the use of machinery. It seems, therefore, that larger farms are likely to be a permanent necessity so long as the present type of farming continues. Since more and more machinery is being used it is to be expected that farms will continue to increase in size for some time. This does not mean that large "bonanza" farms are to develop. We have no figures for such farms, as none of them exist here.

There can be no question but that the larger farms are paying better. But some persons may say that the difference is due not to the size of the farm, but to the farmer, and that the better farmers live on the larger farms. If small farms are the best size, it would seem as if the more intelligent farmers would choose them. If the more intelligent men all choose large farms there must be some reason for it. Certainly there must be some good farmers living on small farms. If the small farm offers the best opportunities, these farmers should be doing exceedingly well.

Of 138 farmers on farms of less than 61 acres, only 10 made a labor income as high as \$600. Of 234 farmers with over 100 acres, 79 made over \$600.

Of 138 farmers on farms of less than 61 acres, only one man made a labor income of \$1,000. Of 34 farmers on farms of over 200 acres, 11 made over \$1,000 labor income.

Small farms have many disadvantages. A large part of the farm work cannot be done economically without at least two men. Many of the smaller farms do not have enough work to keep a hired man profitably employed. The cost of labor per acre is excessive on small farms, also the cost of horse labor. The cost of producing crops on the small farms is also increased because of the lack of machinery.

The receipts per acre are more on small farms than on the larger ones, but the single item of labor cost is so great that it more than offsets the difference in receipts. Other expenses are also more per acre on the small farms. If the farmer's labor is worth \$326, which is the average value placed on it by the farmers in one county, then there is a net loss of \$1.47 per acre on farms of 31 to 60 acres and a gain on the larger farms.

The area that is farmed with \$100 worth of labor is six times as great on the largest farms as on the smallest. Six times as much labor increases the receipts by only two and one-half times. With each group of farms the farmer's labor income is about twice the value of the labor that he directs; that is, twice the value of all labor except his own.

Three or four horses are the smallest number that can be used efficiently with modern machinery. The farms of 151 to 200 acres are the smallest ones that have an average of four horses per farm.

The figures of acres per horse are still more striking. The small farms have not enough horses to make efficient teams, and yet they are over-supplied with horses compared with their area.

On these farms there are only 15 acres per horse. On the largest farms one horse farms three times this area, with no resulting decrease in crop yields. When we consider the cost of keeping a horse we see what a great advantage the larger farms have.

The substitution of horse power for man power is the most striking feature of American agriculture. One horse properly directed can do the work of ten men. According to the United States census the area farmed per man has increased one-third in the past twenty years. This increase has been due to the use of more horses per team. The area farmed per horse has not changed, but the farmer is using one-third more horses per man and has increased the acreage that he could farm in the same ratio. At the same time the crop yields of the country have decreased.

The most striking examples of the use of four to six-horse teams is in the Middle West. In some cases, as in Iowa and Missouri, this has resulted in a decrease in rural population. At the same time, total production has increased. One man is often farming as much land as two men farmed a few years ago, and doing it better.

The value of farm machinery increases rapidly with the size of the farm. This value is only \$341 for farms of 61 to 100 acres. These valuations are probably not half what new machinery would cost. Any one who has ever made a list of the necessary farm machinery will see

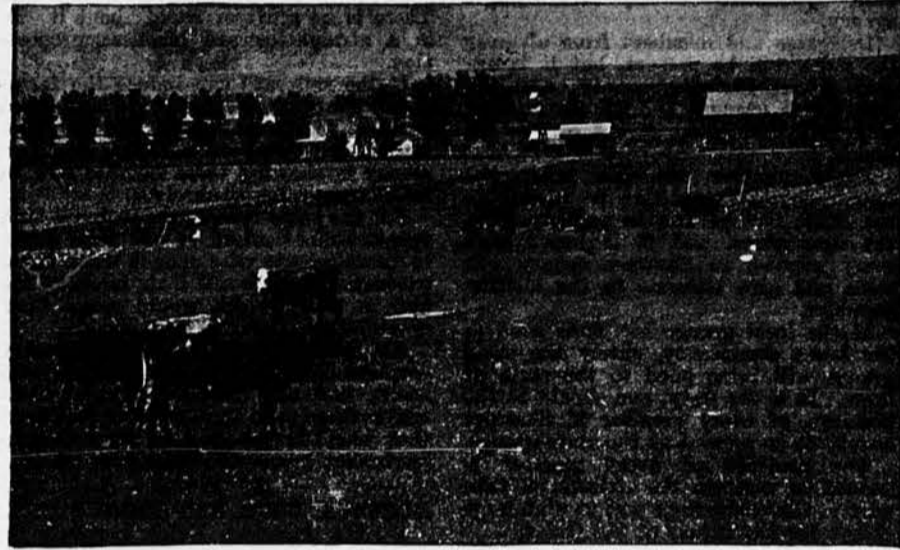
for the investment. The more efficient and numerous machines become, the larger our farms should be. It is interesting to notice how many of the tools are of very recent development. Almost half of the value of farm machinery on a well-equipped farm is invested in machinery that has been perfected in the last few years.

Apparently the efficiency with which the labor of men, teams and tools can be used is the important factor in making the larger farms pay better. The results on tenant farms also agree with these conclusions. The tenant who furnishes labor finds the larger farms more profitable. The profits of the landlord who furnishes no labor seem to be little affected by the size of the farm.

Men, horses and machinery are being much more efficiently used on the larger farms. In spite of the much larger acreage farmed per man and per horse on the larger farms, the crop yields are as good or better.

The percentage distribution of capital is almost the same on each size of farm. The larger farms have a little larger proportion of their money invested in stock. The smaller ones have a little larger proportion in real estate.

The land is worth more per acre on the smaller farms, but the amount invested in horses, machinery and other items is also more per acre, so that the percentage of the capital in each item is not much different from that on large farms.



WITH FULL EQUIPMENT THE MEDIUM SIZED FARM OF 160 ACRES CAN BE WORKED MORE ECONOMICALLY THAN THE SMALL FARM.

at once how inadequately these small farms are equipped. Yet their machinery costs nearly twice as much per acre as that on the larger farms that have nearly three times as much machinery. Machinery can be used more effectively on large farms. One mower, one hay rake, one tedder, one hay loader, one corn harvester, one grain harvester, one grain drill, one manure spreader, one potato digger, one potato planter, can do their work on a 250-acre farm as readily as on a small farm. Few of the small farms have half of these tools. If a small farm does have nearly all the list, it cannot use them enough to pay

ment and teams will then not be used up to their capacity.

On the farms in these counties the per cent invested in equipment is slightly larger on large farms than on small ones.

When we consider farms of any given size, the best paying ones have practically the same distribution of capital as the less profitable ones. Reducing the size of farm to increase equipment is not the way that the most successful

Some persons have thought that farmers would do better if they reduced the size of the farms and increased the equipment. They forget that the equip-

farmers have followed. They have increased both the equipment and the size of farm.

Of farms of a given area, the more profitable ones have the greater capital; but this is not all invested in equipment. The distribution of the capital is nearly the same as on the less profitable farms. The additional investment is uniformly distributed in more land and better equipment.

The city man and the political economist at once ask what effect the larger farms have on the food production of the country. Apparently the crop yields are as good or a little better on the large farms than on the small ones. Certainly the small farms are not producing more per acre. In addition, much more of the food is consumed in the production, since more horses are kept per acre. The smaller farms seem to be too small for the best production from the standpoint of the city, as well as from the standpoint of the farmer.

Many farmers have enlarged their farms by purchasing additional land. Many others might well follow their example. A considerable number of farmers are not in debt, and some also have money available. These persons should study the question of how well their horses, machinery and labor are being used. If a farmer is able to manage horses and machinery to good advantage, it may pay him to go in debt for additional land.

In considering this question we must also consider the probability of a continued increase in the use of machinery in the future that will give the larger farms a still greater advantage.

Sometimes it is very difficult to purchase land that adjoins one's farm. The line fence is one of the greatest obstacles in the way of agriculture. The farms are not well laid out, and it is often impossible to purchase so as to make a farm of satisfactory area and shape. It will sometimes pay to sell and buy where a satisfactory area can be secured.

Many owners have enlarged their acreage by renting additional land. Of the owners for whom a labor income was calculated, 14 per cent also rented land. This, together with the consolidation of farms by purchase, shows how many men recognize the importance of increased acreage. Eighty-six farmers who rented additional land owned an average of 89 acres and rented an average of 51 acres. This gave them 35 acres more than the area operated by the average owner, who did not rent. Their average labor income was \$522, which is \$115 more than the amount made by the average owner who did not rent. This method of increasing the area seems to be a very satisfactory one for those with limited capital. After a few years it is often possible to purchase more land.

Nineteen per cent of the tenants rent farms from more than one landlord. Some others rent two farms of one landlord, so that over one-fifth of the tenants operate more than one farm.

Some farmers are not able to direct their own labor or that of a hired man effectively; probably the smaller the business the better for such persons. Some others do not wish to run a larger business, because they wish merely a small home and can live on the means they now have. These remarks apply to those who desire to run effective farms. The larger area brings increased risk as well as increased opportunity. Before buying more land one must consider his desires and his ability.

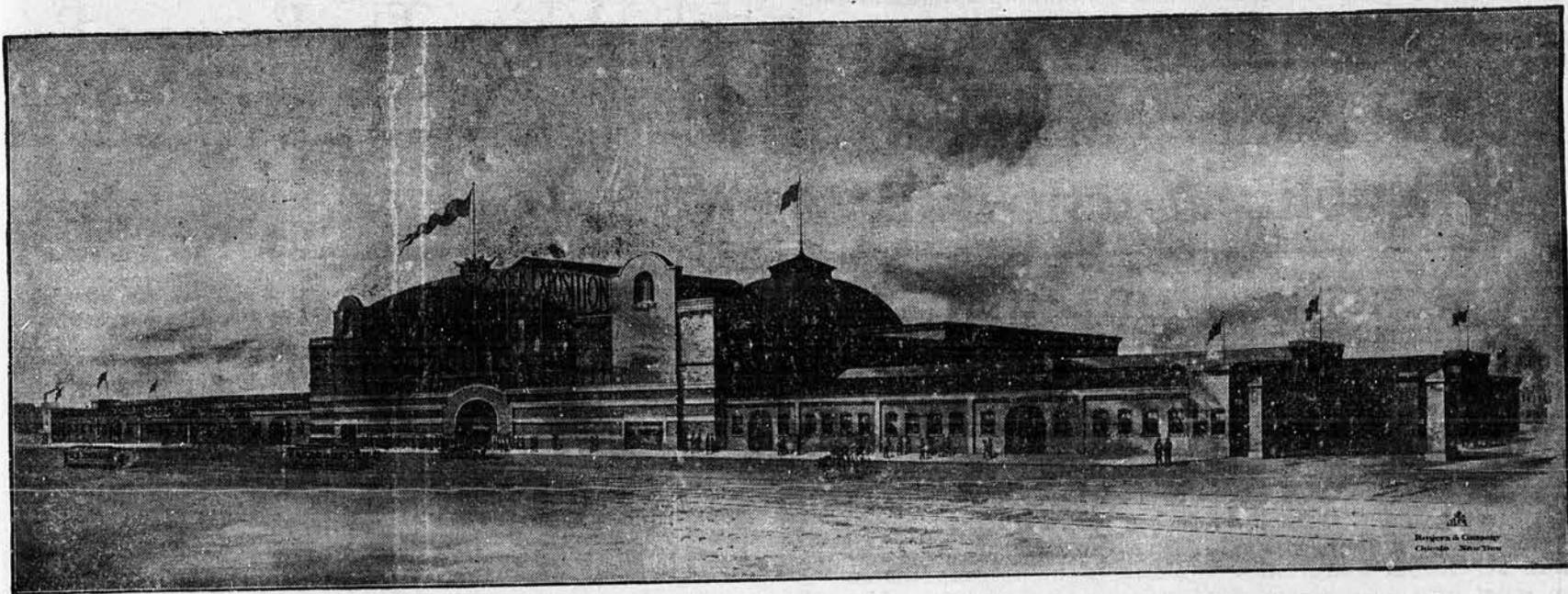
For greatest efficiency, a farm should be large enough to fully employ at least two men the entire year. One man is at a great disadvantage in many farm operations, and in case of sickness or other emergencies the disadvantage is still greater.

For general farming these figures show that a farm should contain at least 150 acres. The upper limit of area is determined chiefly by the layout. With ideal conditions, with the buildings in the center of the farm, and with the public road running past the buildings, as high as 600 acres may be run from one center. With more than this area, the distance of the fields from the buildings is usually too great. It is not often that one can secure so large an area well located with respect to buildings. The most profitable general farms in the counties investigated contain about 200 to 300 acres of good land.—Read before Farmers' Convention at Columbia, Mo.

"I want to congratulate you on your excellent tribute to the quail, 'Bob White,' which I read with a great deal of interest.

"Anyone raised on a Kansas farm, as I was, and being a taxpayer there yet, can appreciate the fact that 'Bob White' is certainly one of the very best friends a farmer has, and I would like to see a law passed in Kansas making it prohibitive for anyone to shoot a quail, for the next five years, at least. Personally I think it is an outrage the way the men from towns go out hunting and kill the quail. It is wrong, and should be stopped by law.

"I thank you for the many good ideas and thoughts I get out of Kansas Farmer, and congratulate you upon its newsy pages."—E. C. COOK, Chicago, who settled in Kansas in 1869.



INTERNATIONAL LIVE STOCK EXPOSITION BUILDING AT CHICAGO, WHERE THE NATIONAL DAIRY SHOW WAS HELD.

National Dairy Show Observations

The Dairy Cow and Allied Interest on Annual Parade

By T. A. BORMAN

This is not a report of the dairy show—only a record of a few things seen and heard, with a few of my observations thrown in, and which I thought of interest and help to the Kansas dairy farmer.

Each year during November is held in Chicago the National Dairy Show, which is an exhibition of the best and latest in dairy and creamery machinery and every other thing allied with the dairy and creamery industry. The show is an educational institution. Its mission is to instruct by publicity. Its aim is to be the clearing house of the dairy cattle industry and all its allied interests—an industry representing in the United States alone an output annually of nearly one billion dollars—more than any farm crop, with one exception.

The show of dairy cattle is always large, but this year breeders surpassed any previous efforts by exhibiting more than 800 animals. This was said to be the greatest show of dairy cattle ever held in this or any other country. The improved dairy breeds were displayed in the highest state of perfection as an object lesson in the climax of breeding to the keeper of unprofitable cows. Here the visitor studied the varied types and characteristics of Holstein, Guernseys, Jerseys, Ayrshires, Brown Swiss, the Dutch Belted—all high producers and profit makers, and one could not but feel impressed with the fact that this perfected dairy machine, one of them equal as a wealth producer to a whole herd of scrubs, requires no more room, no more feed, no more attention, than one of the thousand money losers to be found in every neighborhood on the globe.

The exhibit of creamery butter was the largest ever made at a meeting of the National Butter Workers' Convention, there being over 900 entries, and practically every state in the Union being represented. Kansas was there with six entries, being short one entry required for a state cup. Several states having seven entries get a cup on a lower score than the Kansas score. N. O. Nelson, chief buttermaker for the Continental Creamery Company, Topeka, received a 95.16 score, this being the highest Kansas score. The Merritt-Schwier creamery of Great Bend received the second highest score, that being 93. The creameries of Kansas should participate in the contest to the extent of the number of entries required and bring to the state each year a magnificent silver cup.

R. K. Musser, a formerly-of-Kansas boy, won a \$400 scholarship offered by the Holstein-Friesian Association for the highest proficiency in judging Holsteins. Mr. Musser is a product of the Kansas State Agricultural College, through which institution he has worked his way. He was reared on a Dickinson county farm, and the first Holsteins of which he knew anything were from the herd of the editor of KANSAS FARMER. His father is a farmer and now a resident of Idaho. Of the teams participating in the judging contest the Kansas State Agricultural College team was sixth—not a mean place when it is taken into consideration that other state schools represented have a larger dairy herd in which all breeds are represented, while

Kansas has at its school only the principal breeds.

A beautiful Holstein heifer calf born on the show grounds while President Taft was speaking, has been named Helen Taft. The President is interested in dairying to the extent of keeping a first-class Holstein cow for the White House milk and cream, and his ability to make a speech which pleases dairy-men. The President offered a silver cup to the student making the highest score with all breeds, which was won by Russell Jensen of the South Dakota State College. The White House cow was one of the show cows of the convention.

Dolly Dimple, the Guernsey cow with an iron constitution, attracted much attention. This cow is 6 years old and has given birth to three calves and made the following yearly records: 14,009.13 pounds milk, 703.36 pounds fat as a 2-year-old; 18,458.80 pounds milk, 906.89 pounds fat as a 3½-year-old; 18,808.50 pounds milk, 876.34 pounds fat as a 5-year-old. This is the greatest successive three-year showing ever made by a Guernsey. The cow is owned and was bred by L. Lathrop, Ames, Mass. When I recalled that the average farmer's cow of Kansas is producing not to exceed 100 pounds of butter fat per year, I removed my hat and did not replace it until out of Dolly Dimple's presence. Not every farmer can have a cow like this, but he can buy a dairy-bred bull this year and double the milk production of his herd with the bull's first heifer, and by the continued use of a good bull increase the production per cow a gallon per year up to 350 to 400 pounds of butter fat per year, if he will.

The judging arena was the playground each evening for a large number of calves of the different breeds. In order to decide which one of the lot was the prettiest, a committee of Chicago women was asked to make a selection. The women of the committee were supposed to be ignorant of the qualities desired in a dairy calf, so that their judgment was based on beauty alone. Golden Meadow Fern, a Jersey heifer belonging to Mrs. Adda Howie, was selected as the prettiest calf of the show.

Chicago visitors greatly admired the 6,000-pound cheese on exhibition and which had the reputation of being the largest cheese ever made. This one cheese contained as many pounds as the average cheese factory produces in two weeks in the month of June. Since 100 pounds of milk makes about 10 pounds of cheese, the boys and girls can figure how many cows' milk for one day was required to make this cheese, if the cows average one and one-half gallons per day. I will give a dollar to the boy or girl, living outside of Shawnee County, who first mails to KANSAS FARMER the correct answer. The postmark on the envelope will govern as to time of mailing the answer.

The agricultural colleges were strong on educational exhibits, principally by means of charts, photographs and other means of illustration. The Wisconsin school demonstrated different rations for the dairy cow, which rations would produce the same value in dairy products but at a greater or less profit to the farmer. The ration for one cow for a day, producing 57 cents worth of milk and butter and costing 32 cents, consisted of 15 pounds of alfalfa hay, 5 pounds corn stover, 40 pounds beets, 3 pounds ground oats and 4 pounds cornmeal. Thirty pounds skim milk valued at 5 cents were shown beside the feed. One and three-quarters pounds butter were also shown as the production of the ration and was valued at 52 cents.

Compare with the above this Wisconsin ration, consisting of 15 pounds alfalfa, 30 pounds corn silage, 1 pound oil meal, 1 pound dried distillers' grains, and 3 pounds hominy feed, producing the same amount of milk and butter, but costing only 25 cents, made a neat profit of 32 cents.

The Kansas farmer can, in this year of high-priced feed, supply his cow with a ration at about one-half the cost of the above ration, and if fed to a cow as good as the Wisconsin cow, will return him almost double the profit. A good ration for the Kansas cow need not cost 25 cents per day. It is safe also to say that it does not cost any such figure. Kansas has the combination of home-grown feeds to make the best and

cheapest ration in the world, and with the right kind of cow to eat it can make more money from dairying than the farmers of any other state. By the way, did you note in the Wisconsin ration of lowest cost that alfalfa and silage, each a Kansas crop, constitute the foundation of the ration?

The Brown Swiss made a strong showing for this comparatively little known breed. The breed is improving as a producer of butter-fat. The cows are being bred and fed to larger milk yields. This breed claims distinction as a dual purpose breed, and I will give the breed some consideration in that class. It is my guess, though, that the cows tend more strongly to milk than beef. This tendency will please the man who is looking at the dairy side, but it will not please the man who is looking for beef. The fact is that a dual purpose breed which will please both the dairyman and the beef man does not exist. Sixty-four Brown Swiss cows were shown. One of these tested at Wisconsin Experiment Station was a five-year-old, having made in a year nearly 647 pounds of butter. The value of her total product was \$160.47, and the cost of feeding her but \$46.29, leaving a snug profit of \$114.18 for the year, after all expenses for feed and care had been charged off. This cow would not have made good beef at the time of the show. Who cares anything about old cow beef at 3 or 4 cents a pound when the net profit is over \$100 a year in butter-fat? The heifer calves and bull calves from such a cow will sell as breeders for five times more than they are worth as beef, and there are people ready to buy them at such prices.

Howard Gould, who is blamed for owning a big part of the Missouri Pacific railroad, showed a herd of Dexter cattle. I do not suppose Howard cared anything about showing his cattle, but think the dairy show management thought it would secure a drawing card by inducing him to show. The Dexters—or Kerry cattle—are to cattlekind what the Shetland pony is in the horse world. They occupy the same relative position. Each are playthings and not to be considered, in this country, seriously. Still, one of these little Dexter cows, not heavier than a six-months old skim milk calf of the kind I reared ten years ago, is said to have given 35 pounds of milk of 4.5 per cent fat per day. These cattle have long, black hair.

Every reference I have made to cows so far has been about pure-bred animals. The dairyman of the Kansas farm thinks he has not the capital to invest in record-breaking pure-bred dairy cows. Well, the man who thinks he can afford to feed and care for 25 or 30 of the kind of cows found in some barn lots can afford to buy the best there is in the pure-bred line if he has the disposition so to do. I do not know of any man who has on his hands a bigger and more thankless job than that of feeding and milking twice per day 25 or 30 cows which do not pay their board. The man who thinks he can afford to do this year after year can afford to buy Dolly Dimple. Why not buy a tester and pair of scales—total cost \$4—and look into

(Continued on page 13.)

WORTH A MOMENT'S THOUGHT.

Kansas has one agricultural college for its one and three-quarter millions of population.

Denmark has twenty-nine agricultural colleges for its two million people.

Kansas will this year contribute to the federal government for the army and navy about eight million dollars.

Eight million dollars will support the Kansas State Agricultural College sixteen years.

But the people do not complain about the army and navy.

Seven Choice Washington County Farms at Public Auction

At Washington, Kansas

Wednesday, Dec. 20, 1911

Nearly 1,000 acres in all, located in the fertile Mill Creek Valley, 2½ miles from Washington. These farms range in size from 74 acres to 160 acres. Each farm has some as good farm land as lays out of doors. Good water, some timber, etc. All farms are served by rural mail service and mutual telephone. The improvements on most of these farms are moderate but comfortable. Washington county is one of the best counties in the state for diversified farming and stock raising. Some of these farms are ideal for dairy purposes. This part of Kansas is the natural home of alfalfa, and hogs can be produced cheaper here than in any part of the middle west. These farms will be sold separately to the highest bidder on above date. Free transportation will be provided between now and sale day for parties wanting to inspect the lands. Come and investigate and talk with the successful farmers that own land adjoining this tract. Sale will be held in City Hall, beginning at 2 p. m. Very attractive terms will be made purchaser. Write for illustrated catalog, giving description of each tract, terms, etc., to G. Wertman, Sales Manager, Washington, Kan. Owners,

- A. E. SWEETLAND, Blue Rapids, Kansas
- FRED OCHNER, Washington, Kansas
- G. WERTMAN, Washington, Kansas
- Fieldman—Jesse R. Johnson.

Two 80 Acre Farms at Auction, Thurs. Dec. 14.

Four Miles Northeast of Riley and 7 Miles Southeast of Leonardville, Kan.

80 acres, about 45 acres in cultivation, 8 acres alfalfa, balance pasture, good 5-room house, arch cellar, new barn 34x52, with room for 90 tons hay, cattle shed, etc., bearing orchard, cribs and other outbuildings, good well and windmill.

80 acres, across road from above, about one-third under plow, balance pasture with never failing spring water. These farms are ideal for stock raising, dairying and diversified farming. Close to market, church and good schools, 20 miles from Kansas Agricultural College. Will be sold to the highest bidder without reserve. Sale at 2 p. m. For further information, terms, etc., write owner.

EDWARD KIENINGER, RILEY, KANSAS
Auctioneer—James F. McCulloch. Fieldman—Jesse Johnson.

Young Man!

Don't Waiste Your Money this Winter. Take the Farmers' Short Course at the State Agricultural College. You Get a Condensed Education of Immediate Value.

It Begins January 3—Lasts Ten Weeks.

Here's a course arranged for you as to hours and classes. It is made up of the important things you need to know and MIGHT NEVER KNOW IN A LIFETIME. The 10 weeks' expenses should not be more than \$50 or \$60. You throw that much away every winter. Open to young men over 17 years of age.

Don't forget the State Farmers' Institutes December 26 to 30. Fort Short course bulletin or catalogue apply to

Henry J. Waters, Pres., Box 27, Manhattan, Kan
(Correspondence Courses Offered.)

FINE PRINTING FOR REASONABLE prices. Catalogs, circulars, letter heads. Everything in the printing line. Write for samples and prices. Western Printing Co., 625 Jackson St., Topeka, Kan.

PIES! PIES!! PIES!!!
Kenne's Famous Pie Recipes—tells how to make the most delicious, flaky, appetizing pies at remarkably low cost. Secrets from a noted hotel and restaurant cook. Sent postpaid for only 10c (dime.) Address **KENNE THURDON, Box C2, Fredonia, N. Y.**

Bob White, The Farmers Friend

A Royal Guest Who Dines Upon Roadside Weeds and Insects

By Senator FRANCIS M. WILSON, Missouri

The quail is among the most ancient of game birds. In some form, differing in habits and appearance, gay with the plumage of sunny climes, or grave with the subdued colors of cheerless landscapes, it has been found throughout the world. If we search for its origin, the mists of antiquity obscure its first appearance among the children of men. The Bible tells us of the Almighty furnishing this toothsome bird to nourish and strengthen the Israelites in their combat with the trials of the wilderness, and in all ages it has given the historian his brightest glimpse of bird life, and the poet inspiration for his sweetest song. The name given this royal bird differs with the locality and folk-lore of the people, but throughout the eastern states, from the pineries of Maine to the flowery fields of Florida, and westward to the foothills of the mountains, it is known as "Bob White"—the true name of this species adopted by ornithologists. And so it is, for the protection and preservation of this messenger of civilization, proud aristocrat of farm and field and orchard, that I press this measure upon the senate.

Senators from favored sections of the state, where these birds are fairly plentiful, argue that to enact such a law would be unjust to their constituents. In this I find no comfort for them, but one of the strongest arguments favoring the passage of the bill. History repeats itself. Within the memory of some of my distinguished colleagues, the princely domain which I represent was indeed a "hunters' paradise." Deer broke covert from every brake; wild pigeons clouded the sun as vast flocks passed from feeding to roosting places; wild turkeys in almost countless numbers were everywhere; prairie chickens abode with us in contentment; wild geese—harbingers of coming fall and spring—covered the sandbars of our rivers, or on mighty wing rushed through the air, but—

"There is a Power whose care
Teaches thy way along that pathless coast,
The desert and illimitable air,
Lone wandering, but not lost."

How the change doth vex us! Sad is the retrospect. In secluded places, scattered far and wide over a limited section of the state, the deer are making their last gallant stand; wild pigeons live only in the glorious traditions of our great commonwealth; the prairie chicken is now rara avis, and the wild goose calls in alarm his scattered few as high above their would-be murderers they cleave the blue of the skies, hastening to the few remaining asylums of peace in the faraway southland or in the frozen regions of the north. So it has been given to me to witness the almost incredible destruction of this valuable game, not at the hands of the true sportsmen, who have long waged unequal battle to stay the wholesale and inexcusable slaughter, but to satisfy the inordinate appetite of the "game hog" and his foster brother, the "pot hunter," who slew—and still slay—that they may boast of the cruel carnage wrought and to furnish a precarious living for the market hunter who stains himself with the butchery of these creatures God Al-

mighty gave to bless the lives of men. Senators, what is true of my section of the state will be in a few years the sad story you will have to tell of man's inhumanity to game life. It will then be everlastingly too late to repine. "The moving finger writes; and having writ moves on; nor all your piety nor wish shall lure it back to cancel half a line, nor all your tears wash out a word of it." Let us not longer impede the steps of tardy legislation, but plant our standards close about this finest of American game birds.

What a splendid fight the Bob White is making against the combined hosts of his enemies, and what a fine battle the farmers of my district are waging to save him from extinction. None know better than the farmer and orchardist the incalculable benefit he is to field garden and orchard. From "early morn 'til dewy eve," bright of eyes and swift of legs, the Bob Whites are busy with the destruction of noxious insects and weed pests. He is not regarded as a trespasser, but is entertained as a royal guest, whose stay would be indefinitely prolonged. True it is, that it has taken science a long time to discover what our agriculturists have known about the value of this bird as his chief assistant among the feathered tribe, but it is making up its silence now by proclaiming its virtues from the housetops. It is officially recorded that examinations of many hundreds of stomachs and crops of these birds disclose them crowded with the seeds of noxious and troublesome weeds, his diet for almost half the year. Upon this a government report says: "It is reasonable to suppose that in the states of Virginia and North Carolina from September 1 to April 30 there are four Bob Whites to each square mile of land, or 354,820 in the two states. The crop of each bird holds half an ounce of seed and is filled twice a day. Since at each of the two daily meals weed seeds constitute at least half the contents of the crop, or one-fourth of an ounce, a half ounce daily is consumed by each bird. On this basis, the total amount of weed seeds consumed by Bob Whites from September 1 to April 30 in Virginia and North Carolina amounts to 1,341 tons." May I inquire what the harvest of weeds would have been had each of these seeds produced its own? Does not this plead trumpet-tongued in his defense? But this is not all science teaches us of the aid this bird is giving all classes of those who toil that we may live. Where insects abound, Bob White plays no favorites in his labor of extermination. Alike he wars upon the chinch bug, the grasshopper, the potato bug, the cotton-boll weevil, the codling moth and other devastating bugs and insects. In a letter to the Department of Agriculture touching the voracious appetite of this bird for such pests a gentleman from Kansas writes: "On opening the crop we found about two tablespoonfuls of chinch bugs," and when a consultation of authorities disclosed that this bug has cost the farmers at least \$100,000,000 per year, you may well stand aghast at the formidable array of facts and figures—which admit

Photographs of Farm Automobiles Wanted

Good Pay for Good Photos.

Send KANSAS FARMER any good photo you may have or can get, of your automobile, or your neighbor's, showing some one or more uses you make of it in your farm work, or exercise of pleasure. Only photos of automobiles owned and operated by actual farmers are wanted.

For each of the first three best photos submitted we will pay...\$3.00

For each of the five next best photos we will pay..... 2.00

For each of all others acceptable for the purpose of this competition we will pay..... 1.00

Postal card photos are not desirable, nor those finished on Velox papers. Size of photos should be larger than from 4 x 5 plates or films.

All photos in this competition must reach KANSAS FARMER by December 23 next. The editor will decide on the relative value of all photos, and mail checks accordingly, in full payment therefor. All photos submitted are to become the property of KANSAS FARMER.

Sender's name and address, and the name of the automobile shown, must appear on the back of each photo submitted. Send the best photo you can.



SENT PREPAID 2 3/4 inch Brim. 3 1/4 inch Telescope. OF PRICE.

Here's New York's latest style in Men's Soft Fur Hats. Made from the best imported furs. Colors, black, brown and pearl. Usually sold for \$2.50. Write now for latest catalogue of Hats and other goods.

MILLER MERCANTILE CO. 340 Central Ave. - Newark, N. J.

HARLEY-DAVIDSON

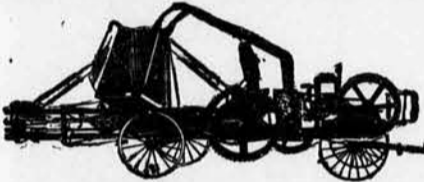
MOTORCYCLES

are now built with "Fut-1" "Plotting" Seats, that take up all the jars and jolts due to rough roads. These seats add to the economy and convenience of motorcycling the comfort is lacking. Ask for prices and descriptions of this and other exclusive features of the new "Harley-Davidson."

HARLEY-DAVIDSON MOTOR COMPANY 287 A Street Milwaukee, Wis.



SELF FEEDER AND SELF-TIER



The TUTTLE combined power hay press saves you MONEY. New side self-feed and the self-tier does it. Two men can run it; three men are a full crew. Fully guaranteed for 12 months, SELF-TIER AND ALL.

TUTTLE HAY PRESS CO. 609 Main St., Pleasanton, Kan.

MORE EGGS AND FREE SEEDS

With every order for 100 pounds of our Salina Laying Food at the regular price of \$2.25 we will give free fifteen 5-cent packets (75 cents' worth) of Garden Seeds. Salina Laying Food contains bloodmeal, meat meal, oilmeal, charcoal, poultry bone, sunflower seed, alfalfa meal, salt lode, Conkey's Tonic, etc. The free Garden Seeds are given to induce you to try a sack, as we are satisfied that you will join the crowd of regular users if you once try it. Drop us a postal for our catalog of poultry supplies.

The Western Seed House Salina, Kansas.

When writing advertisers, please mention KANSAS FARMER.

SONG POEMS WANTED

WE PAY 50 per cent. Thousands of dollars in successful songs. Send us your work, with or without music. Acceptance guaranteed if available. Washington only place to secure copyright. Valuable booklet and examination FREE. H. Kirkus Dugdale Co., Desk 283, Washington, D. C.

THE CELEBRATED SHAIFFER NAIL-LESS HORSE-SHOES.

Abolishes the crime of driving nails into the hoof. More durable; easily attached; 100 times cheaper; no more crippled horses. Every one his own horse-shoer. For price list, address NATIONAL NAILLESS HORSE-SHOE CO., PHILADELPHIA, PA.

SPECIAL EXCURSION

To the Lower Rio Grande Valley of Texas, Where Men are Getting RICH on Our Small IRRIGATED FARMS.

Have you ever figured on making a trip into the Gulf Coast country of Texas. If so, now is your opportunity, as we show it all to you at no greater cost than going to any specified point. Visiting Houston, Galveston, Corpus Christi, Brownsville, the Rio Grande Valley and Matamoros, Old Mexico.

Why farming has proven such a great success in the Lower Rio Grande Valley is because there are a combination of conditions not found together elsewhere in the United States. A healthy, invigorating climate, deposit soil and abundance of river water for irrigation. Mexican labor at 62 1/2¢ a day, without board; largest variety of crops and best of shipping facilities. Even the indifferent farmers may net \$2,000.00 or more on 40 acres of our irrigated land.

As we operate our own private railroad cars we are in a position to quote you a very cheap rate from your locality, that includes round trip transportation, berth, lodging, meals and all side trips. Our excursions leave Kansas City the first and third Tuesdays of each month, via Frisco E. K. line. Write us today for our free illustrated booklet and other information.

STAR LAND COMPANY

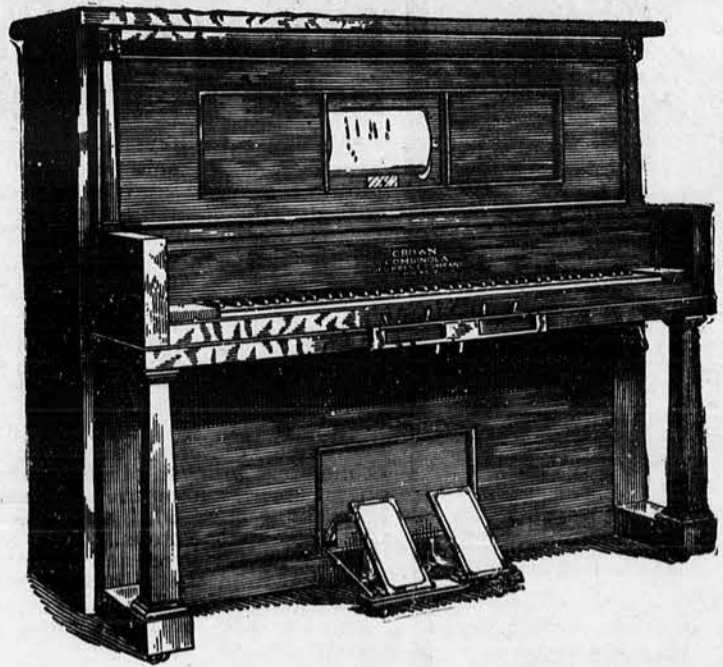
204 WEST NINTH STREET, KANSAS CITY, MO.

of no dispute—that Bob White, above all his feathered brothers, is entitled to the proud name of the farmer's friend.

It is not alone for gain that this bird is so firmly fixed in the affections of the farmer. Incense to its many other virtues rise from countless thousands of happy homes all over this imperial empire of ours. Rich in sentiment, with ear attuned to Nature's symphonies, the farmer revels in the music Bob White contributes to the melody of its grand harmony. No bright tinted troubadour of the air, flashing here and there like a thing of light, his gorgeous breast almost bursting with rich excesses of song, charms him from the seductive call of his best loved bird friend. Spring has come. Here and there dead branches are quickening into life; buds burst into leaf; the brown patches of earth again become the nursery of tender grasses and modest flowers, and all Nature is yielding to the annual miracle which heals the scars on winter's grave with the sweet assurance "that we, too, shall live again." From afar, soft as the low notes of a flute, its sharp, staccato whistle, changed by the witchery of the season into the coy notes of love's first story, comes "Bob White! Ah! Bob White!" Again the music of his soul changes. The shy wooer of the demure little lady nearby becomes bold as a knight errant, and as his jealousy and ardor keeps pace, from stump or rail or broken thicket branch or wherever her eyes, kindling with the fires of coming allegiance, will fall upon his knightly bearing, or ears hear his ardent protestations, again the call, but now the ringing defy of the mail-clad warrior ready to do battle in the lists for his lady love. The theater of his song changes with the coming of June, life's time of thrift. The covenants of spring have been redeemed, and summer sings of the fatness of field and vine in the glorious autumn. While the dew is yet wet on the green of the leaves and gold of the flowers, Bob White banishes sleep with his insistent call, "Wheat's ripe! wheat's ripe!" His faithful mate is not far away. In some neglected spot where security abounds she is busy with the duties of maternity, and again his chuckling notes, "All's well! all's well!" as from "the orchard, the meadow, the deep tangled wildwood," he gives full-throated utterance of his ecstatic joy. What is more charming to the ear than the music of the quail, wafted from wheat shocks as the rays of the rising sun turn from orange to gold the "beauty of the valleys and the glory of the hills"? It surpasses the ripple of the brook, which poets say is Nature's grandest melody. The tenderest memories of my happy boyhood days are linked with hazy summer, when the air was freighted with the perfume of flowers, fruits and berries, and the cheery whistle of "Bob White" rang through the old orchard. Through the years come hymns of happy reapers singing in seas of shimmering grain, the sound of bells, tinkling the way of homeward plodding herds and from the fields the voices of the toilers chanting the dirge of dying day and mingling with it all Bob White's musical farewell, as fading light slips down the cloud-isles of the sunset.

"Dies the day, and from afar away, Under the evening stars, Dies the echo as dies the day, Droops with the dew in the new-mown hay, Sinks and sleeps in the scent of the May, Dreamily, faint and far."

I am a devotee of the rod and gun, and from the standpoint of a sportsman—which I claim to be—my pulse always beats quick and fast when I behold that seed time has past, and the fruitage of



Father—Mother—Anyone Can Now Play Without Practice

Wouldn't you like to play, right in your own home, all the old-time melodies—all the church hymns—all the great marches—all the wonderful operas—and do it without learning to play—without any practice at all—just as well as a musician?

With a Crown Combinola

You may become as familiar with the music of Beethoven, Wagner, Liszt, Chopin, and the other great masters, as you are with the news of the day, and that, too, without the drudgery of years of hand practice. You may get the same enjoyment in your own home as you would at the Metropolitan Opera in New York. You may have concerts, entertainments and church meetings without sending for someone who has learned to play.

No Lessons or Practice

You don't need to take a lesson in music to play anything you want. You don't have to wait for children to grow up so they can play for you. You don't have to leave your musical longings unsatisfied because someone begs off because of lack of practice. There are no disappointments because your friends who do play have left their music home. You can now have music when you want it—the kind of music you want—the very piece you want—and you or anyone can do the playing. That is what a Crown Combinola will do for you.

Always Ready to Play

It is always ready. It is not the silent piano found in so many homes, but one that anyone can play, classic music, grand opera, old-time airs, church songs, latest musical hits, the popular songs that everyone is singing and whistling, the newest waltzes and two-steps. All these you may play, perfectly, if you have a Crown Combinola.

Give This to Your Family

The best present you can make your family is a Crown Combinola. And you owe it to them. They have all done their share to make your farm profitable. You have bought machinery of all kinds to make your work easier. Now, give the family this one thing that will please them most. Let them have at home the musical advantages of the city. It will please the wife and keep the

children at home. And, don't forget, you will enjoy playing this piano just as much as any of the children.

You Can Afford it Now

Let us tell you of our special plan to introduce one Crown Combinola in your neighborhood. Let us tell you what we will do if you already have a piano. Let us tell you more about the Combinola, and send you a beautiful piano book, free. Write us, or send this coupon, to-day, while you think of it.

Crown Pianos



This elegant design is one of our most popular styles. Moderate priced. Highest grade. Beautiful style. This piano may be purchased under our special plan. If you want a piano, let us prove to you the worth of the Crown.

Special Coupon

GEO. P. BENT COMPANY, 220 Wabash Ave., Chicago, Ill.

Tell me about your special plan to introduce one Crown Combinola in my neighborhood. Also send me your beautiful piano book, free of charge.

Name _____

Address _____

GEO. P. BENT COMPANY

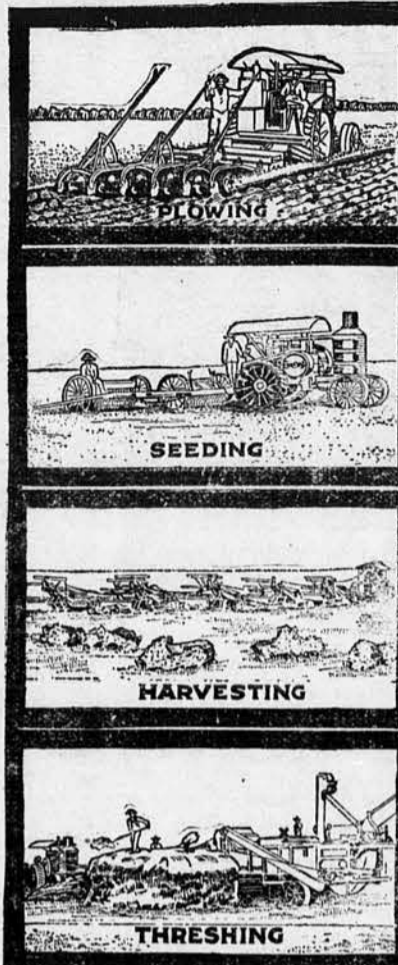
MANUFACTURERS

220 South Wabash Ave., Chicago, Illinois

the earth has come to its own. Under the spell of Nature's enchantress, September and October are mighty flower gardens rioting in the blazonry of bloom. "Magnificent autumn! He comes not like a pilgrim clad in russet weed; he comes not like a hermit clad in gray. But he comes like a warrior with the stain of blood upon his brazen mail. His crimson scarf is rent. His scarlet banner drips with gore." The call, "Bob White," is silent, but from stubble, pasture, tangled copse, and corn fields, standing rank on rank like Hussars in their uniforms of gold and silver and

wherever his fancy leads, we now hear his peculiar covey call. It falls upon the impatient ear of the sportsman with unmeasured delight. Tired of the grind of the busy mill of business, the weary sentinels of the fortress of his brain give warning that it is only the wine of Nature which quickens the sluggish blood; will bring new light to care-worn eyes, and paint the pallid cheek with the ruddy glow of health. As he fills his pockets with shells, his faithful dog leaps about him, eager to match his gift of nose with the cunning of this (Continued on page eighteen)





Do It All With The Modern Farm Horse

You can take a Hart-Parr Gas Tractor and do more and better plowing, seeding and harvesting with it than with all the teams you can profitably employ. Its deeper plowing, more thorough harrowing and even seeding, assure an increased yield; and its enormous capacity enables you to get through each season's work ten days to two weeks earlier than is possible with horses.

Horses eat their heads off during the winter. Sell most of yours and buy a Tractor. It's a lot more economical in cost of keep and operation. It uses the cheapest kerosene for "feed," and when idle, the expense stops.

It is a money-saver and a money-maker from the minute it arrives on the farm. We build three sizes, suitable for farms from a quarter section, up.

**Cheapest to Buy—
Cheapest to Operate.**

Write us for catalog and full particulars.

Hart-Parr Co.

212 Lawler Street

Charles City, Iowa

THE FARM



The National Sheep Show, which will be held at Omaha from December 13 to 16, ought to be of more than passing interest to Kansas people. There is room for a lot more sheep in this state, and those who have them will almost surely make money.

Sold Manure Pile at Auction.

The Downs News, in writing up a \$51,000 farm and personal property sale, says that a pile of manure sold for \$14. Not many farmers would have thought of either buying the manure or offering it for sale.

Latest in Potato Culture.

For years the "A, B, C, of Potato Culture" has been the leading text book on growing potatoes. This book has now been revised and brought down to date by the authors, T. B. Terry and A. I. Root. The book may be had from the A. I. Root Company, Medina, Ohio.

New Corn Book.

In these days the farmer cannot know too much about the crops he is growing. A lot of good literature is being prepared for him and it is free for the asking. Such a book is "Corn Facts," published by the National Seed Tester Co., Des Moines, Iowa. Every corn grower should read it. The boy at school who is studying the fundamentals of agriculture will be interested in it.

The Department of Agriculture reports that more agricultural implements were sold during the past year than during any one year in the last decade, and these were of the latest patterns. A strong feature in this report is that which shows the enormous sale to the farmers of the south. Many farmers that were content with a small turning plow and a harrow as the sole equipment are now buying up-to-date machinery, and this is pointed out as showing the alertness with which the farmer seizes every opportunity to increase his yields.

Worms From Infected Ground.

"While a few swine can be raised in limited quarters, if such quarters are kept clean they will do better, will keep in better health, and can be grown more cheaply if they have plenty of range for pasture. It is desirable to have the pasture fenced off into suitable areas so that the hogs can be shifted from one pasture to another, not only to provide fresh pasture, but also to afford an opportunity to disinfect the pastures, either by plowing and seeding to a forage crop or by exposure to sun and weather. Nearly all cases of intestinal worms, which are rather common to swine, are contracted from infected ground, and swine can be kept free from these parasites by frequent changes of pasture." This is from Farmers' Bulletin No. 465, issued by the United States Department of Agriculture.

Chinch Bugs Burned Out.

There is no longer any doubt of the value of winter burning as a means of killing chinch bugs. A rectangular area of 17½ square miles of farm land in northern Sumner County was burned over last fall and winter. The crops harvested on the burned area last summer—1911—showed marked improvement over those in the surrounding unburned territory. A. E. Barry, a farmer in the burned district, says that destroying the chinch-bug-infested grass made him nearly \$1,000. In the 17½ square miles a saving of about \$7,000 on the wheat crop alone must be attributed to this burning. That is more than it cost the state to carry on its bug investigations, otherwise known as entomological research. The burning was done under the direction of Dr. T. J. Headlee, head of the department of entomology in the Kansas Agricultural College.

Some Results for Good Farming.

By applying some of the lessons learned from the small plot tests, the Ohio experiment station has been able, as an average for a considerable number of years, to increase the yield of corn

from 31 to 73 bushels; the yield of oats has been increased from 35 to 55 bushels; that of wheat from 11 to 35 bushels, and that of hay from 1 to 3 tons. The cost of producing this increase has been the systematic use of 10 tons of manure per acre every four years and an expenditure of \$14 per acre for lime and fertilizers for the same period in a rotation comprising one year each of corn, oats, wheat and clover. The total value of the increase for the entire four-year period, including straw and stover, has been \$62.00, leaving a net gain therefore of \$48.00 for the four crops of the rotation, or \$12.00 per acre for each crop each year.

The yields and money returns indicated above may, to some, appear unusual; but there are many of the more progressive class of farmers who are securing even better yields, and thousands more could do at least as well if they would take the trouble to become acquainted with their business.

By keeping the stable manure under cover and re-enforcing it with 40 pounds of acid phosphate to each ton of manure, the station has succeeded in increasing the net value of the manure from \$2.60 to \$4.80 per ton. And probably 75 per cent of all the manure produced in Ohio is thrown into an open barnyard, where at least 35 per cent of the plant food contained is lost by leaching and fermentation before it reaches the land at all. The careless and indifferent methods practiced in caring for the farm manure alone are responsible for great loss to the agricultural interests of the state.

Alfalfa in Southeast Kansas.

"I have taken KANSAS FARMER for a number of years, and consider it a great deal of help to the farmer who will read it and practice what it teaches.

"I would like to have your idea about sowing alfalfa in the spring on land that has hard pan about 10 inches below the surface. When would be the best time in the spring to sow it, and how much seed should be sown to the acre?"

"Seven years ago I bought 40 acres of land that was almost past growing cane and Kafir corn. Now, I can grow anything that is acclimated in this country. I have never had a manure pile about my barn or lots, so you can see what made my land productive."—J. C. ELLIOTT, Weir, Kan.

With hard pan so close to the surface the growing of alfalfa sown at any time of year is a hard proposition. This does not mean that alfalfa will not grow on such land, but does mean that it is not likely to be permanent or to be productive. It is possible to grow it for one or two seasons, but it will die out when the roots strike the hard pan, unless something is done to break up this hard pan so that the roots can penetrate it and the surface be drained.

If any attempt is made to grow alfalfa there it should be done in a small way and experimentally. Thoroughly plow the ground and get the surface into fine tilth, as the seed is very small and should come into contact with the earth with but few air spaces. Sow at the rate of 10 pounds of good seed per acre, either drill or broadcasting, and drag in.

In Eastern Kansas generally it has been found more profitable and satisfactory to sow in the fall and thus escape crab grass and foxtail, as well as the hot rays of the sun on the young crowns after the first cutting.

However, some of the best fields of alfalfa in this section were sown in the spring, though that is a busy season. Sow in April or the early part of May if the conditions are right.

Sow on fall plowing if possible and disk the land before sowing. Use a much smaller quantity of seed for spring sowing than would be used in the fall. Fifteen pounds is about the limit here for fall sowing where the seed is good.

While we shall be interested in learning of the results obtained from sowing alfalfa under the conditions named, we are of the opinion that red clover will be the more profitable crop, as it is a biennial, while alfalfa is a perennial.

30 Days' Free Trial

Write for our Free Trial Offer today—see how you can use this wonderful farm tool sharpener 30 days free without any obligations. Sharpen all your farm tools and then send it back at our expense if you don't want it. 5 years' guarantee.

Luther Hummer Tool Grinder

30 attachments to select from. Besides the 14-Attachment Farm Sharpening Outfit, as illustrated, the Luther Hummer Tool Grinder has 16 separate attachments, such as milk tester, horse clipper, jig and circle saws, etc., from which you can select whatever you want. Steel frame, shaft drive, dust proof ball bearing. Costs no more than old style chain grinders.

Dimo-Grit—"the wheel for steel"

The perfected artificial diamond sharpening substance. 25 times faster than the grindstone—10 times more efficient than emery. No danger of drawing temper or need of water. Carborundum wheels furnished, if wanted.

WRITE TODAY FOR FREE TRIAL OFFER

Answer this advertisement today and get particulars and my free trial offer. We will also send 40-page book on tool sharpening and interesting story about the discovery of artificial abrasives, Dimo-Grit and Carborundum. Write today—sure. A postcard will do.

LUTHER GRINDER MFG. CO., 145 Stroh Building, Milwaukee, Wis.



Mention Kansas Farmer When You Write



Educational Trains

now bring the facts from the Experiment Station direct to the Farmer.

The Experiment Station men are anxious to discuss the questions of most value to the people along the routes. Ask them to bring along an exhibit of fertilizer materials and to tell you how to get the most plant-food for your money.

Recently one train gave demonstrations of actual fertilizer mixing. Soon many will do so. Take your fertilizer dealer to these trains. Ask him to sell Potash Salts and brands containing six to ten per cent. Potash.

We shall be glad to send you, free, pamphlets prepared by the best practical authorities on fertilizers for various crops and soils. Write today, mentioning crops and soils that you wish to improve.

GERMAN KALI WORKS, Inc.

Continental Building, Baltimore

Monadnock Block, Chicago
93 Nassau Street, New York

FERTILE VIRGINIA FARMS

\$15.00 PER ACRE & UP—EASY PAYMENTS

Productive soil, mild climate, fine water, good roads, close markets, unsurpassed school and social advantages.

Now, while you think of it, write for the latest issue of "THE SOUTHERN HOMESEAKER," other literature and low excursion rates. Address F. H. LA BAUNE, Agr'l Agt., Norfolk & Western Ry., Box 2026 Roanoke, Va.

YEARLY RAINFALL 45 INCHES

Oklahoma State Fair.

Oklahoma is said to have had a rather poor crop season. The government reports show an average yield of only 9 bushels of corn to the acre, and yet in spite of this great drawback her state fair which is a privately owned and managed institution, had an attendance of 130,000, with total receipts of \$99,615.50; an operating expense of \$77,224.82, and a net profit of \$22,390.68. The total amount invested in grounds and buildings is \$320,337.93.

Evidently the Oklahoma people appreciate the value of a good fair and have "got the habit."

Oak Grange Institute.

The program for the twenty-sixth annual session of the Oak Grange Farmers' Institute, which will be held at the Oak Grange Hall on December 6 and 7, is as follows:

WEDNESDAY EVENING, DECEMBER 6, 7:30 P. M.

Music.....Chorus
Opening address.....O. B. Eddy
Music.....Chorus
Farm Necessities.....L. L. Vrooman
How to Raise Corn.....August Engler
Violin solo.....Emery Brobst
Poultry Problems.....Mrs. Ed. Buckman
The Care of the Horse.....J. A. Peck
Should We Patronize Mail Order Houses?.....Mrs. Fred Bliss
Music.....Male Quartet
Co-operative Buying.....H. H. Wallace
Music.....Chorus
THURSDAY MORNING, DECEMBER 7, 10 A. M.
Music.....Chorus
Recitation.....Mary Christman
Floriculture.....W. L. Lux
Farm Pastures—Their Kind and Care.....John B. Sims
Music.....Chorus
The Farmer's Garden.....O. S. Whitney
Good Roads and How to Get Them Quick.....W. H. Coultis
Violin solo.....Theodore Hanschild
The Milking Machine.....Frank Kidd
Recitation.....Johnnie Christman
Basket Dinner.

AFTERNOON SESSION, 1:30 P. M.

Music.....America
Value of Farm Land.....A. T. Daniel
Address.....Gov. W. R. Stubbs
Music.....Male Quartet
Reading.....Lillian Stone
Address.....Arthur Capper
Piano duet.....Lois Tice, Mabel Buckman
Alfalfa.....I. D. Graham
Piano solo.....Avis White
Why Do Farmers Move to the City?.....Geo. Christman
THURSDAY EVENING SESSION, 7:30 P. M.
Music.....Chorus
All About the Silo.....Chester Sterling
Paper—Introduction of Agriculture in the Common School.....Miss Sheidler
The Modern Farm House.....Fred Engler
Music.....Chorus
The Farmer and the City Ordinance.....Col. J. W. F. Hughes
Music.....Male Quartet
Sheep.....Jacob Mohler
Music.....Chorus
How to Judge a Good Horse.....R. C. Obrecht
Reading.....Wallace Corbett
Music.....Chorus
Chorus—Mrs. Roy Hanna, Bertha Clinton, Violet Longaker, Minnie McGill, Stella Sterling, Anna Nystrum, Lois Tice, Roy Hanna, Leonard Vrooman, Perry Tice, Ross Clinton, Chester Sterling, Frank Helm, Wallace Corbett, Leland Paramore.
Male Quartet—Frank Helm, Leland Paramore, Roy Hanna, Chester Sterling.
Music in charge of Chester Sterling and Mabel Buckman. Everybody is invited.

Measuring Hay in the Stack.

"I am writing you for a standard rule for measuring hay in the stack. I bought a stack of hay and we cannot agree upon the measurement."—C. J. Fox, Whitewater, Kan.

Our subscriber does not name the kind of hay in the stack. Prairie and timothy will settle more closely than will clover and alfalfa, and this will mean a different number of cubic feet to the ton.

With clover or alfalfa which has stood in the stack for 60 days there will be about 512 cubic feet to the ton. Timothy and prairie hay will measure about 425 cubic feet to the ton. If clover or alfalfa has stood in the stack until spring about 450 cubic feet to the ton should be allowed.

For ordinary ricks, multiply one-third of the over by the width and length and divide by 512.

For very wide ricks multiply one-fourth of the over by the length and width and divide by 512.

Subtract the width from the over and then multiply half the result by the



Pigs Without Worms



S. R. FEIL, Pres.

**I'll Stop Your Losses From Worms
I'll Prove It 60 Days Before You Pay**

I'll drive out the deadly pests that steal your profits. I'll make every animal on your place worm-free, thrifty, and put them in condition to get the full benefit of their feed—make them bring you the most profit—if you will just send me the coupon below.

Sal-Vet is not a stock food, but a medicated stock salt. It is saving farmers hundreds of thousands of dollars by breaking the grip of deadly worms on the live stock industry. No dosing, no drenching, no bother—just let your stock doctor themselves 60 days before you pay. You will be astonished at the results. **Prominent breeders endorse Sal-Vet.**

"I write to say that I have been a free user of Sal-Vet ever since its introduction, and find that it is the most perfect worm exterminator on the market today. It will positively do all that you claim for it. There is nothing within my knowledge as good and reliable or as cheap."—E. C. STONE, Peoria, Ill., Sec. Amer. Hampshire Swine Record Ass., Pres. Ill. Swine Breeders' Ass.

"Please send us two more barrels of Sal-Vet at once. This is the best preparation we have ever used. We give all our sheep, horse, and over 100 hogs free access to it. It is all you claim."—A. J. LOVEJOY, Roscoe, Ill., Sec. Berkshire Breeders' Association.



Little Pigs only a few weeks old are often found loaded with worms. Hogs of all ages suffer from these parasites. They become run down, weak, then cholera gets in its deadly work. Read these letters. See what it means to have healthy, worm-free hogs when cholera breaks out in your neighborhood. Protect your stock at my risk.

"The hog cholera is all around us in this neighborhood, but so far there is not a single case among the hogs belonging to the men who are feeding Sal-Vet."—THOMAS CANNEDY, Roodhouse, Ill.

"Since giving our hogs Sal-Vet, all of them are well and doing finely, although hog cholera is all around us."—ED. COLLINS, Delphos, O.

All farm animals need Sal-Vet to make them big profit makers. I offer you Sal-Vet on a plan that makes it easy for you to try. You don't risk a single penny.

Don't Send Any Money—Just the Coupon

If you will fill out this coupon—tell me how many head of stock you have—mail it to me, I will ship you enough Sal-Vet to last them 60 days. You simply pay the small freight charge when it arrives and when the 60 days are up, report results. If Sal-Vet does not do what I claim—if it does not rid all your stock of the deadly stomach and free intestinal worms—I'll cancel the charge—you won't owe me a cent. Send this coupon today.

PRICES: 40 lbs., \$2.25; 100 lbs., \$5.00; 200 lbs., \$9.00; 300 lbs., \$13.00; 500 lbs., \$21.12. No orders filled for less than 40 lbs. Never sold in bulk; only in Trade-Marked "Sal-Vet" Packages.

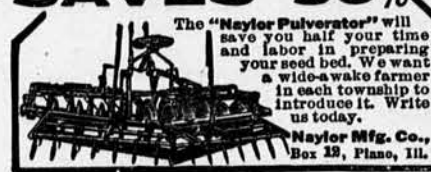
SIDNEY R. FEIL, Pres.
THE S. R. FEIL COMPANY
Dept. K.F. CLEVELAND, OHIO

1547

Ship me enough SAL-VET to last my stock 60 days. I will report results in 60 days and will then pay for it. If it does what you claim, I'll cancel the charge.

Name _____ P. O. _____
Shipping Sta. _____ State _____
Shipper _____ Cashier _____
Date _____ 12-2-11

SAVES 50%



The "Naylor Pulverator" will save you half your time and labor in preparing your seed bed. We want a wide-awake farmer in each township to introduce it. Write us today.

Naylor Mfg. Co.,
Box 23, Plano, Ill.

width and this product by the length, then divide by 512.
Add the over to the width. Square this sum and multiply this product by the length and divide by 512.
Before using any of these rules you must agree upon the number of cubic feet to the ton. This will depend upon the kind of hay and how long it has been in the stack.

To Stock Up After Cholera.
While Kansas has not suffered from the ravages of hog cholera to such an extent as have nearby states, and while the cholera epidemic has not been worse than it has at other times in this state, the matter is serious enough and the losses have been heavy.

This disease and other causes have caused a shortage in hogs which is nation wide and which will have to be made up. Naturally, those who raise hogs and have suffered from cholera will want to stock up again, as the prospects ahead of the hog raiser are very bright.

To do this it will be only wise to be on the safe side. Thoroughly disinfect all buildings and lots by burning trash of all sorts and plowing up the lots, where possible. If the lots cannot be plowed, scatter straw over it liberally and burn this off if it can be done with safety to the buildings. Then spray, and do it thoroughly. Spraying may be followed by a coat of whitewash.

As the dangerous life of the cholera germ is not definitely known, it would be better to use entirely new quarters for the hogs. The cholera germ is thought by veterinarians to be rendered innocuous, if not killed, by exposure to weather conditions for one year or less and if the farmer does not get into the hog business again during that time he will undoubtedly be safe. That, however, might be a year wasted, and a thorough disinfection of the premises, together with the serum-simultaneous treatment, will enable him to begin with his new herd right away.

EVERY SUCCESSFUL FARMER IS A GOOD BUSINESS MAN

Every good business man is anxious to invest his surplus means where it will bring him the largest return consistent with unquestioned safety. He knows that in doing so he must co-operate with other successful business men who are careful, painstaking investors. He knows that many enterprises are large enough to furnish investments for many people and that the world's greatest achievements in business have been accomplished only by co-operation of people and combination of capital.

THE CRYSTAL RIVER MARBLE COMPANY OF COLORADO cordially invites a few more of the good readers of this paper to become holders of its stock at \$1.00 per share (par value). It guarantees safe and conservative management of its affairs. It has a working property of proven value in which is now invested over four times as much money as the total amount of stock now offered for sale.

NO BUNCOMBE IN THIS PROJECT.
We are willing for you to investigate fully and judge for yourself of the character of this property and of the men whom you are invited to join in this enterprise.

We have no connection with any other marble company. The company has in its property an immensely valuable deposit of high grade marble. The average quality of the marble, as far as known, is unsurpassed by any other marble quarry in the world, passed by any other marble quarry in the world.

THIS IS AN OPPORTUNITY OF A LIFETIME.
Considerably over one hundred million dollars' worth of marble has been produced and sold by one marble company in this country, and the dividends paid have been enormous.

Many of the best and steadiest incomes have had small beginnings.
THE COMPANY'S OFFICERS ARE:
E. T. GUYMON, President, Hutchinson, Kan.; Banker.
E. D. HORN BROOK, V.-Pres. and Gen. Mgr., K. C., Mo.; Construct'g Engineer.
JACOB F. SMITH, Secretary, Buffalo, N. Y.; Lawyer.
J. R. MULVANE, Treasurer, Topeka, Kan.; Banker.
R. K. WOOTEN, Director, Chickasha, Okla.; Banker.
B. E. NACE, Director, Kansas City, Mo.; Manufacturer.
H. H. EMBRY, Director, Kansas City, Mo.; Auto Dealer.

We would be glad to have you see the cores of this marble at the company's office, 1116 Oak Street, Kansas City, Mo., and we will be glad to answer any inquiries.

When ordering shares, please make drafts payable to J. R. Mulvane, Treasurer, and address to, or call on
DAVID HOPKINS, FISCAL AGENT
1116 OAK STREET, KANSAS CITY, MO.

ALFALFA MOLASSES FEEDS AND KAFIR CORN CHOP

will finish your cattle, hogs or sheep, in connection with cottonseed meal, quicker than any other kind of feed. It puts on the finish that makes the money. Special prices to feeders on straight or mixed cars Alfalfa feeds, cotton or linseed oil meal, or any other kind of feed. Send for circular and prices. Mention Kansas Farmer.

The Otto Weiss Alfalfa Stock Food Co., Wichita, Kansas.

I Ask Every Hog Raiser To Read These Letters About Curing Sick Hogs



E. Myers, President, E. Myers Lye Company.

You know I might talk about MERRY WAR LYE until I was blue in the face and still not be able to convince you that MERRY WAR LYE really is the greatest hog remedy, conditioner and fattener the world has ever known.

But I want you to be convinced that I know whereof I speak because I have spent more than 20 years making test after test, saving hundreds of thousands of dollars of hog profits that otherwise would have been lost.

Read This Convincing Evidence

T. Akins, Hozio, Ark., writes: "Merry War Lye is all the lye that we use. Before we began using it, we had a lot of hogs with Cholera, We used Merry War Lye and it cured our hogs."

Heed My Warning

Lots of Farmers and Hog Raisers have been led to believe that they could get just the same results from any lye and have lost their pork profits and met up with serious disappointment as a consequence.

Profit by the experience of these progressive Hog Raisers. Go to your dealer and get a few cans of MERRY WAR LYE and try it once.

How To Use Merry War Lye

Follow these directions carefully: Mix one tablespoonful MERRY WAR LYE withlop for 10 hogs, or a half can with barrel of swill.

Kettle Powdered Lye For Soap Making

If you want the best lye, exclusively for soap-making, scouring, cleaning, disinfecting, etc., use my famous Kettle Powdered Lye—it makes the best soap you ever used—but don't feed it to your hogs.

At All Leading Dealers

Don't allow yourself to be talked into taking anything else—there are no substitutes for Merry War Lye. It comes in 10c cans; full case of 4 dozen cans for \$4.50 at Grocers', Druggists' or Feed Dealers'.

Get This Free Booklet... Most dealers handle MERRY WAR LYE. If yours cannot supply you, write us, giving your dealer's name and we will see that you are supplied.



LIVE STOCK



Uncle Sam at International. Secretary Wilson has ordered 12 head of sheep to be shown at the International from December 2 to 9, and at the National Sheep Show at Omaha, December 13 to 16, in order to show the progress made by the Department of Agriculture in breeding range sheep.

uable elements. When a farmer sells a forty-bushel crop of wheat he disposes of fertilizing materials which if bought in commercial form would cost him \$13.15.

Government Needs Horses.

In discussing the question of breeding horses for the army, Secretary Wilson of the Department of Agriculture recently said: "For some years the United States army has found great difficulty in obtaining a sufficient supply of horses of a suitable character. It appears that on the present peace footing the mounted service of the army requires from 2,000 to 2,500 horses a year, and in order to supply this number of suitable animals it is estimated that at least 100 stallions would be required."

Young and growing animals and dairy cattle return in the form of manure 75 to 80 per cent of all nitrogenous matter fed them, and an even higher percentage of potash and phosphoric acid.

Wintering Horses on Pasture.

At the Government Horse Breeding Stations, located at Fort Collins, Col., and Middlebury, Vt., the experiment of wintering horses on pasture has been tried, with great success. These stations were established for the purpose of developing, by proper selection and breeding, a type of American carriage horse that will be useful for cavalry remounts as well as for general purposes.

Hogs can be used to consume the grain crop, pasture alfalfa, utilize by-products of the dairy and wastes from every part of the farm.

FREE-FARM ACCOUNT BOOK

Know How Much You Make Next Year. No one shall pay a cent for Bickmore's Farm Account Book. It will be sent free to any farmer who will be good enough to tell who and where he is.

BICKMORE'S FARM ACCOUNT BOOK

Published by BICKMORE GALL CURE CO., OLD TOWN, MAINE, U. S. A.

BICKMORE'S GALL CURE

a remedy that cures, and the horse works all the time. Users keep it in their stables the year round—they believe in it. It is always ready for Horns or Saddle Galls, Chafe, Rope Burns, Cuts, Scratches, Grease, Heel, etc.

Send Your Name on This Coupon or on a Postal Card

Name _____ F. O. _____ E. D. _____

Send me a Free Copy of Bickmore's "Farm Account Book," as advertised in _____

This corn sheller is only \$30, freight prepaid to your station, and it will shell 120 bushels an hour.

Think of buying a fine guaranteed machine for less than half the price of others. Three H. P. operates the sheller to full capacity.

Has a feed-grinding attachment for \$12 more that does a regular grinder's work. The combination costs only \$42.

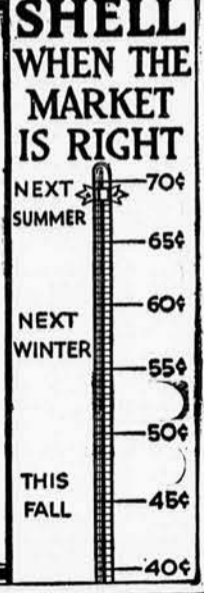
5 Days' Trial

You can shell when you please—when your corn or the market is right for it.

Pays for itself in a good 3 days' run; satisfaction guaranteed.

Write for booklet to home office. All goods shipped from our branch at Omaha, Neb.

Watts Mfg. Co. Box 106 Jackson, Mich.



Lightning Pitless Scales

New Pattern. Solid Channel Steel Frame. Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform plank. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.

KANSAS CITY HAY PRESS CO., 129 Mill St., Kansas City, Mo.

Animals thus kept are much better in health than when confined to a barn, and this experiment has been so successful that it will be continued and, at the Vermont station, a 100-ton concrete silo has been built in order to test the value of silage and timothy hay for a winter ration for the brood mares.

The experiment of wintering on pasture reduced the cost of stabling from \$2 to \$1 per head per month and the cost of attendance from \$3 to \$1 per head per month.

Live Stock and Farm Practice.

The history of our agricultural past plainly points to the need of a revolution of our farm practice. Single crop and grain farming must be replaced by a diversified system. An important and necessary part of any diversified farming system in every part of the west is some form of animal production. Animals should eat thousands of tons of grain that are now hauled to market; live stock can consume to advantage hays and forages that are now marketed in many districts at great trouble and expense; animals should be used to turn into marketable meat and other products for human consumption, the so-called waste products of the farm that are now largely lost.

The Guernsey.

"The Guernseys are noted for their beauty, as well as for their utility. For the dairyman or dairywoman who makes butter or sells milk by test, the Guernsey is the breed to keep. Their rich, golden products appeal to those who want good butter and cream.

"Here in Wisconsin many of us practice soiling. Instead of making our cows use up their energy in hunting their food, we carry it directly to them from the field, and I can truly say that it is time and labor well spent.

"I like to sing this little song to my idling maids and working matrons in the herd:

"We were very much interested in your article on page 8 of the November 11 issue of KANSAS FARMER entitled, 'Line Breeding.' But few of us understood just how this is done from generation to generation. Will you please explain fully in your next issue, as some of us would like to try it in our hog breeding operations?"—SPRING BROOK FARM, Lone Star, Kan.

About Line Breeding.

The terms used in connection with

breeding operations are so indiscriminately used that they lose much of their real meaning. To get at the meaning of line breeding let us state the meaning of other terms first.

Close-breeding, in-breeding and inter-inbreeding are practically synonymous terms, and indicate the mating of animals that are related. Close-breeding indicates closeness of relationship in animals thus bred. In-breeding denotes the breeding together of related animals in a single instance without regard to the closeness of the relationship. Inter-breeding means the breeding together of related animals of alien blood.

Following these comes the term in-and-in breeding, and this indicates the breeding together of animals that are closely related for a number of generations. In-breeding relates to single acts of coupling relatives, while in-and-in breeding has reference to repetition and close continuity in the breeding together of related animals.

Now, line-breeding has to do with in-and-in bred animals belonging to a certain family in the breed and is practiced for the sake of perpetuating the good qualities of some particular sire. To illustrate: Anxiety 4th was a famous Hereford sire, whose qualities every owner would naturally desire to perpetuate in his herd. His first calves would, of course, contain only half of his blood and half of that of their respective dams. Avoiding very close breeding, the grandsons and granddaughters of Anxiety might be bred together and then the herd continued by having every animal in it so bred that it would contain some Anxiety blood. This Anxiety blood would probably appear on both sides of the pedigree, but might appear several times on one side only.

The best herd of Herefords in Kansas is line-bred, and so is the best herd in Missouri. As a calf would have 2 parents, 4 grandparents, 8 great-grandparents and 16 great-great-grandparents, there would be a chance for Anxiety to appear a number of times in the pedigree, either in his own name or that of his sons or daughters.

As line breeding has for its chief object the securing and maintenance of a uniformity of type, it simply means a greater prepotency in the animals so bred. It is the quickest way possible to secure these results but, as it must start with more or less of in-and-in breeding, and as animals will perpetuate their bad as well as their good qualities, these are dangers to be guarded against.

Line breeding is usually beneficial and yet it must not be carried too far or the bad qualities will also be intensified. Perhaps no class of Shorthorn cattle has been line bred to a greater extent than have those of the Bates families, and in their earlier history they were famous as prize winners. For the past half century, however, the pure Bates cattle have not been numerous in the shot leets of the show rings. When Bates-bred cows are mated with Cruickshank bulls the results have been highly satisfactory. This seems to show conclusively that the Bates cattle were line-bred for too long a time during their later history.

Cruickshank cattle were much mixed in their earlier history by the frequent purchase of cows from other breeders, but in later years the breeding was closer in line, though this herd was dispersed too early to determine results in full.

If properly done, line breeding is of the greatest value in building up a herd, establishing uniformity of type and increasing prepotency, but if too long continued there may result a loss of size, delicacy of constitution and a general deterioration. If poor quality is selected in the breeding animals, line breeding will tear down a herd quicker than any other agency.

Nearly All Farm Products Higher.

Short crops of corn, potatoes, hay and oats and a good crop of cotton have had their effect on the prices which are being paid to farmers for their products. Inquiry by the department of agriculture regarding prices paid on October 1, compared with that date a year ago, shows that barley averaged 45.6 per cent higher; potatoes, 30.2 per cent higher; hay, 22.7 per cent higher; oats, 17.4 per cent higher; corn, 7.5 per cent higher; buckwheat, 2.4 per cent lower; wheat, 5.7 per cent lower; chickens, 6.0 per cent lower; butter, 9.2 per cent lower; eggs, 10.7 per cent lower; flaxseed, 12.4 per cent lower, and cotton 23.3 per cent lower. Prices on September 1, compared with last year, for clover seed averaged 23.2 per cent higher; sweet potatoes, 23.1 per cent higher; onions, 5.1 per cent higher; honey, 2.2 per cent higher; cabbage, same; milk, .5 per cent lower; beans, .9 per cent lower; milch

If You Have Cattle, Hogs or Sheep to Market Or Are Thinking of Buying Feeders—

Remember, that upon your choice of a commission firm may largely depend your profits. We invite your consignments, whether large or small. Whether you are a feeder who ships only an occasional carload, or a regular shipper, you may rest assured of first-class service and highest market value. Our feeder-buying service is unexcelled. Send us your orders for anything you want in the line of feeding cattle or sheep and save money and worry.

CLAY, ROBINSON & CO. LIVE STOCK COMMISSION

Kansas City Chicago So. Omaha E. St. Louis Ft. Worth
So. St. Joseph Sioux City So. St. Paul E. Buffalo Denver

cows, 1.1 per cent lower; horses, 4.1 per cent lower; apples, 4.6 per cent lower; beef cattle, 4.7 per cent lower; veal calves, 5.0 per cent lower; wool, 11.9 per cent lower; lambs, 14.2 per cent lower; sheep, 18.7 per cent lower; hogs, 21 per cent lower.

A MANUAL OF FARM ANIMALS.

By Merritt W. Harper, Assistant Professor of Animal Husbandry, Cornell University. Cloth, 5 1/2 x 7 1/2 inches, 545 pages. Illustrated. A practical guide to the choosing, breeding and keeping of horses, cattle, sheep and swine. This book is written with the view to aid in the practical every-day work with farm animals. It has chapters on judging, breeding, feeding, care and diseases of all classes of farm animals. It is fully illustrated and will be of great value to all live stock farmers. Sent postpaid for \$2.00. Both of above books just published. Send for catalog of Practical Books on the Farm and Garden.

J. J. HIGGINS & CO.,
55 State Street, Boston, Mass.

A Home-Made Stacker.

Most farmers are accustomed to making use of old materials when occasion offers and their ingenuity and their equipment will permit, but more could



be done along this line on most farms if real thought were given to the matter.

An instance of the utilization of things which might otherwise have gone to the scrap pile is shown in the accompanying picture.

This is a home-made stacker, which the owner believes to be the only one in the world, and was built by Leroy Cady, of Glasco, Kan., who describes it as follows:

"As the picture indicates, the grain is carried upon the stack by an elevator which can be raised to any angle desired. The header barges used with this stacker are so constructed that the rear end can be opened, being hinged with a couple of hinges to the high side.

"A load is driven up just past the end of the elevator, which is raised up to permit the load to drive in. Then the elevator is let down just to rear of rack and just a little below the level of same. The rear end of the rack is swung open

and in a few minutes the load can be shoved upon the elevator and carried onto the stack.

"A hour-horsepower gasoline engine is used, and with this combination stacks can be built containing several hundred bushels of grain and the stack can be run to a height beyond the reach of any pitcher.

"I believe this rig would be just the thing for filling a silo."

Food Prices Will Continue High.

The farmer is assured of good prices for his products so long as the demand for food increases more rapidly than the supply of food. The number of people engaged in producing food have not increased in proportion to those employed in other industries and the increased demand on the farmer will cause food prices to continue high until the area or productive capacity of our lands is notably increased. Bearing on this line of thought his statement by Secretary Wilson, of the United States Department of Agriculture, is interesting: "I hope to see the men who are looking for work go to the country dis-

Get this 184-page Veterinary Book FREE



Simply call for it at your own drug store

Learn to Know Your Live Stock

The book tells you about the ailments of your cattle, horses, sheep, hogs and chickens. Gives symptoms and enables you to treat all ordinary cases at home. Veterinarians use it in their practice. Pages are large and well illustrated. Dr. Roberts, the eminent veterinarian, has dedicated it freely to the use of live stock owners. Get a copy free from your druggist. If not there, enclose 10c in stamps to pay postage and address

Dr. David Roberts Veterinary Co.
141 Grand Avenue, Waukesha, Wis.

CATALPA SPECIOSA

A hardwood tree. Fast grower. Makes big fence posts in 4 years; telephone poles in 6 years. Will stand 1,100 trees to the acre. Many Kansas groves now MAKE \$30.00 PER ACRE per year. But only the genuine kind will do it. The scrub kind, common every where, is useless. Let us show you the difference and furnish full particulars. BOOKLETS FREE. Write us today.
WINFIELD NURSERY CO.,
Winfield, Kansas

FREE Santa's Own Book of TOYS

Get our big free 128-page toy book, beautifully illustrated in five colors. A trip through its pages is like a real visit to Toyland. Largest assortment of toys to be found anywhere. Everything that interests children and young folks. Money-saving prices. Write today.

Schmelzer Armco

Dept. B Kansas City, Mo.



SICK HOGS

Cured and disease prevented with Snoddy's Powder. Clears hogs of worms. Makes hogs thrifty. Will send man and treat sick hog on insurance. Treatment is simple. Any one can use it. \$5 case cures 40 hogs. Book and test reports free. Agents wanted. DR. D. C. SNODDY CO.,
DEPT. E. NASHVILLE TENN.

9 CORDS IN 10 HOURS

BY ONE MAN with the FOLDING SAWING MACHINE. It saws down trees. Folds like a pocket-knife. Saws any kind of timber on any kind of ground. One man can saw more timber with it than 2 men in any other way, and do it easier. Send for FREE illustrated catalog No. A40 showing Low Price and testimonials from thousands. First order gets agency.
FOLDING SAWING MACHINE CO.
157-163 West Harrison St. Chicago, Illinois

CUT DOWN YOUR GROCERY BILL

THIS FREE BOOK shows you how to save from 20 per cent to 50 per cent on all your groceries.

Buy your groceries direct from us and save from twenty to fifty per cent of what you are now paying. We have solved the "high cost of living" problem for thousands of delighted customers.

We buy everything in enormous quantities. This means rock bottom prices—prices that small buyers cannot get. We sell direct to you with only one small profit added. We save you all the "middlemen's" profits that eat up so much of your money.

All our groceries are full measure—absolutely pure. Write to-day for our interesting, money saving grocery book. It is book No. 11. It is free. We want you to compare our prices with those you are now paying. We issue the grocery book every two months and will send it to you regularly.

Below is a partial list of the other books we issue. They contain thousands of big, money saving opportunities. No matter where you live we can fill all your needs and save you an amazing amount of money. No matter what it is you want, we have it. We can save you many dollars on everything you buy. We are doing it every day for over 2,000,000 delighted customers. Send to-day for the books that interest you. Order the books by their numbers.

CHECK OVER THE LIST NOW

17 Baby Carriages	28 Women's Tailored Suits
18 Men's Fur Coats	29 Circular and Drag Saws
19 Sewing Machines	30 Women's Fashion Books
20 Gasoline Engines	31 Rain Coats, Rubber Coats, etc.
21 Cream Separators	32 Vestments and Accessories
22 Building Material	33 Women's Cleaning Dry Goods
23 Stoves and Ranges	34 Baby's Dress and Toilet
24 Underwear Samples	
25 Automobile Supplies	
26 Bicycles—Motorcycles	
27 Baby's Dress and Toilet	

Sign and Mail Coupon NOW!

160 Montgomery Ward & Co.
19th and Campbell Sts. Chicago Avenue Bridge
KANSAS CITY CHICAGO

Please send to my address below books Nos. absolutely free of cost.

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

SEND COUPON TO THE NEARER ADDRESS

YOUR JUDGMENT AND Your Neighbors Say Get a SHARPLES Tubular Cream Separator

Your judgment says, "Get the Sharples Dairy Tubular because it contains no disks or other contraptions. Has twice the skimming force of others. Skims faster and twice as clean. Wears a lifetime. Is guaranteed forever by America's oldest and world's biggest separator concern. No other separator has any of these advantages." Why go contrary to your own judgment? Your neighbors say, "We have tried others and have discarded them for Tubulars. We should have got Tubulars in the first place." Why ignore the experience of your neighbors?

Write for Catalogue No. 165.

THE SHARPLES SEPARATOR CO.
WEST CHESTER, PA.
Chicago, Ill., San Francisco, Cal., Portland, Ore.
Toronto, Can. Winnipeg, Can.

FITZ OVERALLS

LINE UP WITH FITZ the BEST OVERALLS MADE

Finest materials and best workmanship combined assure you satisfaction in every garment

Burnham, Munger, Root D. G. Co.
Kansas City, Mo.

Write for Free Fitz Book.

\$3,000,000

Will be saved this winter to the 15,000 users of Indiana Silos. Are you getting your share? There is another winter coming. Our best salesmen are the 15,000 Indiana Silos now in use.

SILO PROFITS

Written by over two hundred of the best breeders, feeders and farmers in the world. Tells how they greatly increased their profits. "Write for this valuable book and our new catalog now—FREE." Licensed under Harder Patent No. 627,732.

INDIANA SILO COMPANY

The largest manufacturers of Silos in the world.
Address nearest factory:
Union Bldg., Anderson, Indiana
Indiana Bldg., Des Moines, Iowa
Silo Bldg., Kansas City, Mo.
811
Good Agents wanted everywhere.

BOWSER SWEEP MILLS

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

FREE—Send for "Feed and Assurance" C. N. P. Bowser Co., South Bend, Ind.

DAIRY



Dairying in Western Kansas.

At the Plainville farmers' institute F. C. Frisbie made a talk worth hearing. Dairying and poultry, Mr. Frisbie considers, taking one year with another, the most profitable branches of farming. In dairying he follows no scientific system of feeding, but aims to provide plenty of good feed and gives his cows all they will eat. Also one year with another he preferred poultry to wheat. Of course every farmer could not follow his system profitably, but a great many could make their path in life smoother by paying more attention to dairying and poultry.

Difference in Tested Cows.

An illustration of the difference in the individuality of cows is shown in the records of a herd kept at the New York State Station. The best cow in the herd averaged 10,150 pounds of 4 per cent milk annually for three years on \$58 worth of feed. The poorest cow averaged 3,350 pounds of 5.88 per cent milk on \$52.40 worth of feed. If in one year the poorer half of the herd had been replaced by animals equal to those in the better half it would have increased the yearly revenue \$237.40, if the milk had been sold at current shipper's price, or \$379.90 if the butter-fat had been sold, with an added expense of only \$40, the cost of the extra food consumed by the better cow.

Holstein Improvement.

A farmers' bulletin by the United States Department of Agriculture says the practice of officially testing dairy cows has proven to be an efficient factor in weeding out the unprofitable members of the herd. The Wisconsin station has published during the year results of official testing in that state for the past ten years. During the first five years of the decade the average production of aged Holstein cows on a seven days' test was 397.5 pounds of milk and 13.9 pounds of milk-fat, while in the last five years of the decade the average production of this class was 432.9 pounds of milk and 15.3 pounds of milk-fat. This gain was due in large part to improved breeding, feeding and selection of the dairy stock.

The Dairy Herd.

It is not difficult to find men, even in the most prosperous dairy communities, who do not believe that dairying pays. They have tried it and failed. Some have purchased good stock, but poor management or false economy in housing or feeding prevented them from getting the results they expected, but by far the largest number of these failures are due to the use of animals that are not adapted to dairying.

Those who purchase a few cows when the price of fat is high and sell them off when the price goes down, naturally have a rather poor opinion of the dairy business. To obtain the best results it is essential that the animals purchased for the dairy should be of the strict dairy type and be made a permanent part of the farm live stock. Those who purchase cows with the intention of milking them but a short time and then selling them off when the price of butter-fat drops or when the animal goes dry, naturally look more for beef producers rather than milk producers. It is impossible to build up a good dairy herd by this method. Dual purpose animals may be used in some localities to good advantage, but to get the best results one of the special dairy breeds should be used. This does not mean that only thoroughbred animals should be used, but animals that are bred for milk production. A good dairy cow should produce enough butter-fat in her best days that the value of the beef may be of secondary importance if not entirely ignored.

A person purchasing an implement considers first how much service he can get out of it, and not its value as scrap iron when worn out. Those who purchase dairy cows should consider how much butter-fat she will produce, and not the value of her hide and carcass.—E. A. MARKHAM.

Before the recent session of Congress was a bill providing that butter be not held in cold storage for a period longer than six months. At a recent meeting of the National Creamery Butter Workers' Association a resolution was adopted favoring not less than one year as the period for which butter may be stored. The same association passed a resolution to the effect that old duty on Canadian cream be restored. Be it remembered that under the recently established duty of 5 cents per gallon on cream resulted in Canada shipping into the United States the past season cream equivalent to 7,000,000 pounds of butter.

Merchant and Farming.

Why is the merchant interested in farming and better farming? The volume of the merchant's business is measured by the products of the farm. The larger the crop, the more the farmer has to sell and the more he will buy. The merchant who buys from the farmer and sells to the farmer will have the big business in the good crop year. The merchant who does not deal with farmers, deals with those who manufacture for the farmers, or who are engaged in transporting goods to or from the farm, or they may be making things for those who manufacture or transport goods to or from the farm. At the last analysis it is hard to find anyone whose business is not measured by the products of the farm, says Prof. W. C. Palmer.

In a poor crop year the merchant has a hard time, traveling men are taken off the road, railroads reduce the number of their laborers, banks do little business, and all live in hopes of a good crop next year.

Why She is Boss.

Americans do not take kindly to the idea of chains and slavery, but many a dairymen has unconsciously drifted into the condition. He is chained to a worthless, willful cow.

The man doesn't know where he is going; he simply follows the cow. That is how he came to be tied up to this creature; he didn't know what he was doing, nor what the cow was doing—or rather what she was not doing. In fact, there has been altogether too little looking and knowing in this man's business. He has worked hard with his hands, but little with his lead pencil, and the dollars have come his way very reluctantly. As for the cow, the only thing she has done right well is to drag her owner after her and to pick up a living without paying for it, says Prof. W. J. Fraser.

The cow is not worried nor disposed to look on the dark side of life. Thus far she has found no trouble in pulling her owner along without his asking any questions, and she now feels sure that her milk record will never be inquired into. This presuming creature doesn't know about the key within the dairyman's reach.

The cow has been satisfied to make 133 pounds of butter fat in a year, thus returning a profit of only 77 cents in 365 days. If the dairyman had 474 cows of this kind, he could make from them a total of \$1 a day, and with that he could keep soul and body together.

But do not mistake this cow for a rare specimen of an almost extinct family. On the contrary, she is very common and popular on all our prairies—a cow of consequence. She is actually a leader; she leads that dairymen (and a great many other dairymen) where she will, while grazing contentedly. She has a following of one-fourth the cows in Illinois.

It may be said for this cow that she is not a vicious animal. The dairymen has nothing to fear from her horns or her feet. She is well-behaved and usually there is nothing suspicious about her manner. But when it comes to remorseless stealing of the bread from the mouths of the dairymen's family, her tribe may well be classed with the great business sharks and trusts that prey upon the people. She has cheated the dairymen of this state out of millions of dollars the past year without the slightest shame or nervousness. And yet they follow this cow as though they have never known freedom from such an incumbrance.

POWER for the Farm



Easily produced by the New Farm Cushman—the high-powered, light-weight, fuel-saving engine for general farm work. Advanced 4-cycle type. 4 H. P. rating, but will actually develop over 5 horsepower. Automatic throttle governor, with high grade Schebler carburetor, measures out just enough gasoline to do the work required, whether it be a 1 H.P. or a 5 H.P. load. Uses less than **One Pint of Gasoline Per Hour Run Per Horse Power.**

Easy to change speed, do it instantly. Weight less than 200 lbs. Mounted on an iron truck, easily pulled from one job to another. Possesses valuable features no other engine has. Guaranteed for 10 years on your farm. Anyone can run it.

Write for free booklet telling all about it. CUSHMAN MOTOR WORKS, 2048 N. ST., LINCOLN, NEB.

Farm Cushman The Original Binder Engine



Lifts Itself

AMERICAN FARM GATE

You, Mr. Farmer, your wife or children, don't have to lift an American Farm Gate when you want to open it. Just release the catch, and the end rises automatically (it lifts itself). No tugging, no lugging. Works easiest, lasts a lifetime—but costs no more. Invented by the first manufacturer of steel farm gates.

Before you buy a single gate for your farm, write us for price list of American Farm Gates. It will be real economy. Steel or wood, painted or galvanized, all styles self-lifting.

Reliable Agents Wanted
AMERICAN FARM GATE COMPANY,
4605 15th St. Kansas City, Mo.

DE LAVAL CREAM SEPARATORS

not only save their cost every year but may be bought on such liberal terms as to literally pay for themselves. Why should you delay the purchase of the best separator under such circumstances?

THE DE LAVAL SEPARATOR CO.
165-167 BROADWAY, NEW YORK. 29 E. MADISON ST. CHICAGO.

KITSELMAN FENCE

Got It From the Factory Direct

Sold direct to you at factory prices on 30 days trial. Save the dealers profit. Farm, Hog and Poultry Fence at from **1 1/2 CENTS A ROD UP.** All wires are heavily galvanized 30 rod spool of Ideal galvanized Barbed Wire \$1.40. Write to-day for large free Catalog showing 100 different styles and heights of fencing. Box 61 KITSELMAN BROS. MUNCIE, IND.

Wind and Water Free with the use of that connecting link

THE SUCCESS VANELESS WINDMILL

Successful Half a Century. Runs easily, lightly. Post card brings prices and book from manufacturer to farmer.

Hastings Foundry & Iron Works
Box 17 Hastings, Neb.

BROWN FENCE

MOST durable fence made. Heaviest wires. Double galvanized. Stock strong. Chicken tight. 13 to 35c per rod. Sample free. We pay freight.

The Brown Fence & Wire Co.
Dept. 39 Cleveland, O.

National Dairy Show Observations

Continued From Page Five

the profitableness of the cows you are milking? I am sure, almost, that one-half the herd is paying the board of the other half. Then why not quit feeding the poor half—sell them now—and give the good half of the herd more feed and make more money? Save half the milking labor, too.

No, the farm dairyman does not need Dolly Dimple. Most likely she would be a failure in his hands. Her mechanism is to be compared with that of the finest watch. The ordinary feeder and caretaker could not get results from her. The farmer can have the 300-pound butter-fat grade cow and can keep her machinery going at great profit. To get such cows, buy a bull calf from some good herd. Attend the next dairy show and buy. I saw bull calves from great cows offered at \$150 to \$250. These calves were good enough to head any dairyman's pure-bred herd, and at the head of a grade herd nothing better could be desired. What the progeny of one of these bulls may do is illustrated by the grade Guernsey cow Bessie, on exhibition at the show. In one year this cow made an official record of 777.945 pounds of butter-fat, winning the Wisconsin dairy cow competition. This cow is an exceptionally large producer, of course, but you are as likely to have an exception in your herd as the man in Wisconsin, and to own such a cow as this is to be rich. But you'll never know what you have in the herd until you begin weighing the milk and testing. You may have diamonds in the rough and not know it.

The general manager of the show was A. O. Auten, a long-time dairyman and Jersey breeder. In a speech he paid this tribute to the dairy cow. None but a good man and a good dairyman could write three such paragraphs:

"In our improved breeds of dairy cattle the nation has one of its most valued resources. It is the producer, the creative power, that keeps the world going. How to produce, and at the same time not waste, but save and reinforce the raw material, is the study of the economist. Conservation is the watchword.

"The present-day dairy cow not only converts the earth's green vegetation into untold wealth, but makes the earth better by returning to its soil a fertilizing power for greater growth than it originally possessed. This is 'production and conservation' in its truest sense.

"The improved dairy cow is a heavy producer, an economical producer, and consequently most profitable. She bears offspring with this same economic creative ability. And, above all, she gives back to the earth as much fertility as her scrub prototype, and costs no more to keep. The cow will virtually make two blades of grass grow where one grew before."

The federal dairy division took an active interest in this show. It maintained a working dairy located in a model barn. The cows were twenty grades and thoroughbreds—good and poor—picked up somewhere about Chicago and loaned by farmers for the occasion. Each cow was fed all she would consume of a good dairy ration, the base being alfalfa hay. The milk was weighed and tested daily and the cow given credit for the butter-fat and skim milk produced, and against this was charged the cost of feed. These figures were posted on the stall of each cow. The lesson taught by figures was the object of the demonstration. The figures showed an unusual variation in test of milk from day to day, and even in quantity produced—this no doubt due to the strange surroundings and the excitement occasioned by the visiting crowds. The figures showed that some good-looking pure-breds were not as profitable as some grades, and that a number of the cows were not paying for their feed, and showing further that the cow owner is groping in the dark unless he tests his cows. A government expert lectured daily in this barn, using the cows and charts to illustrate his talk. These lectures were highly instructive. They should have been heard by every cow owner within a thousand miles of Chicago.

The above demonstration was arranged by Chief Rawl of the dairy division, who is losing no opportunity to

show the need of more careful cow selection and in more economical butter-fat production. Every man, federal or state, connected with the dairy industry proves by the work he is doing that in these two respects must dairying be profitable or unprofitable.

The federal dairy division also demonstrated a cheap and efficient farm milk house. In this building the hand cream separator is located, the cream cooled and held until delivery. Its convenience and usefulness was apparent. The plans for this structure will later be given in KANSAS FARMER. The Blue Valley Creamery Co. also showed a farm cream house and an attendant explained the advantages, methods of construction, etc., to the interested visitor. This cream house was fully equipped. It demonstrated how an inexpensive structure through which fresh water runs as it is pumped for the stock will maintain a low temperature and permit the holding of cream for several days in perfect condition. This structure was more expensive than that shown by the government, but the two buildings were constructed along the same general lines.

The James sanitary barn equipment was an interesting exhibit which attracted much attention. This equipment is designed specifically to enable the dairyman to keep his barn and his cows cleaner, cut down the cost of caring for the cattle in the barn, and to increase profits. The stalls and manure carriers are practical, sanitary, easily installed, labor saving, and the cost moderate. I believe this modern stall and tie can be installed at as low cost as any substantial and reasonably effective wood stall can be built.

The man who visited this show could not feel other than that the dairy industry is engaging the best thought of the present day. The owner, herdsmen and caretakers are men of high intelligence and have placed the breeding of dairy animals and the feeding and milking of cows in the list of highly honorable callings. The man who feels that in milking a few cows he has humbled himself, has engaged in a business beneath his dignity, has another guess coming. The effect of a show like this should be that of making the dairyman more contented with his calling. Leaving the show the visitor immediately plunged into the sordid section of the great Chicago, where poverty was oppressive. The man who has the privilege of working in the pure air amid his cows and crops would be a more contented man did he take time to see how a part of the world lives.

The annual dinner of the American Association of Creamery Butter Manufacturers is one of the big occasions of dairy show week, although a half hundred dinners are given by as many organizations. Prof. McKay, formerly of Iowa Agricultural College, is secretary of this association. The dinner speakers this year, as always, are the big men, each in his respective line, in the country. The general subject was "Conservation by Better Farming." As usual Kansas contributed its share of speakers. These were President Waters and Director Webster of the Kansas Agricultural College. To arrange a "better farming" program without one or the other of these gentlemen would be well nigh impossible.

"The Educated Farmer" was the topic of President Waters. He told what the schools and other agencies of the country were doing to give the farmer a better understanding of his business. "The world must be fed, and the farmer must feed it. During the past 50 years the yield of farm crops has been doubled by an increased acreage. During the next 50 years the yield must be doubled, but by doubling the yield per acre can this be accomplished, and while this is being done the soil must be saved," he said. "This increase must come from better soil culture, more systematic crop rotation, better utilization of our manures, etc., and a considerable part of it must come from planting better seed." In the above few sentences is concentrated the whole future of agriculture in this country. Dwell on these statements, and, while this condition may not concern you directly, gray-headed reader, you have children and grandchildren who will be confronted

Mayer HONORBIT SHOES

These shoes combine style, refinement, comfort, service and high quality.

Mayer Honorbit Shoes are not only stylish looking, but dependable wear. They are "built on honor."


The choicest leather is selected for the uppers, the soles are of special tannage, the materials and workmanship throughout high-grade. Cannot be equalled anywhere at the price. If you want the dressiest and best wearing shoes obtainable, demand Mayer Honorbit Shoes.

WARNING—Look for the Mayer Trade Mark on the sole—if your dealer cannot supply you write to us

We make Honorbit Shoes for men, women and children, including "Leading Lady" and "Special Merit" brands—also Mayer "Yerma Cushion" and Mayer "Martha Washington Comfort Shoes."

FREE OFFER—Send the name of a dealer who does not handle Mayer Honorbit Shoes—we will send free a handsome picture of Martha Washington—size 15x20.

F. Mayer Boot & Shoe Co. Milwaukee, Wis.



BUILT ON HONOR

Don't Lose Money On Sick Cows.



KOW-KURE

for Cows only

KOW-KURE has doubled the value of thousands of ailing cows by its wonderful medicinal qualities. Hundreds of unprofitable cows have been rescued from the butcher and made big profit-producers. KOW-KURE is not a "stock-food;" it is a remedy. It positively cures and prevents the ailments that sap the strength of the milking cow and growing calf. It regulates the digestive and generative organs and tones up the entire system—cures BARRENNESS, RETAINED AFTER-BIRTH, ABORTION, MILK FEVER, LOST APPETITE and similar ills.

Every dairyman should use KOW-KURE to keep the herd healthy, because healthy cows produce profits. For your own information, write today for our free book, "More Money from Your Cows." It gives valuable pointers on the health of cows.

DAIRY ASSOCIATION COMPANY
LYNDONVILLE, VT., U. S. A.

Concrete Silos

The best silo that can be built. Write for prices for 1912.

HOOPER & SON,


Manhattan, Kansas

with these problems as sure as the world moves. Help them to realize the situation and start them on the road to comfort and contentment by better farm methods.

Speaking of "The Farmer of the West," Director Webster referred specifically to the man who is endeavoring to dig a living from the soil west of the 100th meridian and extending to the Rocky Mountains. "This section is destined to become one of the greatest producing centers for live stock in America. The transition from the open range to the abandoned wheat farm has taught that forage crops are, to a workable degree, sure; that Kafir corn, milo and sorghum will produce sufficient grain for the needs of the stock farmer," he said. "The wheat farmer has no place in the development of the dry farming area. The establishment of dry farming methods has insured practical success in the culture of feed crops, and the farmer in this area must succeed through live stock."

So, in closing, this sentiment of the dairy show is appropriate: "Man shall not live by bread alone. His bread must be buttered, if he attains the highest civilization. Milk is the one perfect human food. Butter and cheese exemplify man's subtlest alchemy. The cow leads the way in his rise in the scale of civilization. Dairying is the incomparable industry of man's development. It furnishes the most satisfying and sustaining food. The greatest deprivation the human race could suffer physically would be the loss of the dairy cow. All hail the cow, most perfect product of man's refining power in animal improvement!" "The dairy cow is queen. The National Dairy Show is her court."

Rayo LANTERNS



Good Light

makes night work easier. Rayo lanterns give the most light possible for the oil used.

Rayo Lanterns will not blow or jar out.

They are easy to clean. Easy to fill and light. Made to stand hard wear.

You can get Rayo Lanterns in various sizes, finishes and styles. Each is the best you can buy of its particular kind.

All Rayo lanterns are equipped with selected Rayo globes, clear, red or green, as desired, and wicks are inserted in the burners, ready to light.

Dealers everywhere; or write for descriptive circular direct to any agency of the

Standard Oil Company

(Incorporated)

When writing advertisers, please mention KANSAS FARMER.

LIVE STOCK INSURANCE—Cheap and reliable. Write for our plan. Geo. Withers, Clay Center, Kan.

Thick, Soft Sheepskin

Best sheepskin lining, with all its long, warm wool left on. The greatest heat retainer known. A sure protector from chill winter winds and storms and the sickness they cause. Covered with heavy duck, corduroy or moleskin, and made into the finest work coats you ever wore. **Guaranteed perfect in every detail.**

Ideal Duck and Corduroy Coats

Exactly right for all kinds of work and all kinds of weather. Short and long coats, single or double breasted. Selected fabrics of highest grade. Lined with sheepskin or warm blanket material. Sewed together with an elastic double stitch, guaranteed not to rip. Big, storm-proof collars of corduroy or fur that keep your ears as warm as toast. Sleeves and armholes large and thick-lined, allowing free use of your arms. Deep, reinforced pockets. Reinforced buttonholes. Patent buttons or clasps that can't pull off. Many styles for men and boys, some with knit wristlets to keep out wind. Honest West-made goods, with a quarter-century of "know-how" behind them. Also ideal sheepskin vests and ideal overalls, jumpers and flannel shirts. Best dealers all over the West are proud to sell them. If you can't buy them in your town, tell us your dealer's name and we'll send our illustrated booklet and something for the children.

M. E. SMITH & Co.
Sole Manufacturers, 909 Farnam St., Omaha

Fairbanks-Morse Oil Tractor

Pulling four 16 in. Sod plows and 8 ft. pulverizer discs at cost of 57 cents per acre.

Will work day and night continuously and in the hottest or coldest weather.

**CONVENIENT
RELIABLE
ECONOMICAL**

For all kinds of work. Oil is cheaper than gasoline.

NOW IS THE TIME TO BUY

Send for prices and new Free Catalog No. TX 898

Fairbanks, Morse & Co.
Chicago Kansas City
Omaha St. Louis

When writing advertisers please mention Kansas Farmer.

TOWER'S
LEATHER-BOUND
REFLEX SLICKER
SATISFACTION
EVERYWHERE GUARANTEED

**MAKES WORK ON RAINY DAYS
A PLEASURE**

Our REFLEX edge (Pat'd) runs the entire length of coat and storm lap. — Guides all water to the bottom where it drops off

**ABSOLUTELY NO POSSIBILITY
OF GETTING WET**

Practical-Serviceable-Economical

Ask your DEALER to show you
THE FISH BRAND REFLEX SLICKER

A. J. Tower Co.
Boston
Mass.

**TOWER-CANADIAN
LIMITED**
Toronto

**Ship your FURS
HIDES AND BELTS**

To McMillan Fur & Wool Co.
MINNEAPOLIS, MINN.

Old Reliable (35 yrs.) and Largest Dealers in the Northwest. Pay High Prices. Quick Returns. Satisfaction. Circulars to anyone interested in Raw Furs. Free! Trappers Guide to those who ship to us.

POULTRY



The turkey's thanksgiving day is the day after Thanksgiving.

The goose's thanksgiving day is the day after Christmas day.

But the poor old hen has no thanksgiving day at all, for she is liable to be made into a pot pie any old day of the year.

The scarcity of fresh eggs and their consequent high price ought to be conducive to more egg farms in the vicinity of all the larger towns.

The demand for strictly fresh eggs is always greater than the supply, and though a greater supply might lower the price, still it would always be big enough to be profitable.

The cost of proper buildings on an egg farm ought not to be very expensive, and whoever undertook such an enterprise would be sure to realize large returns on the investment.

The problem of more eggs on the farm would be solved in a great many instances if the farmers would provide warmer quarters for the hens. Bank up the poultry houses with straw, hay, fodder, or anything to make them warmer.

During the holidays of Thanksgiving and Christmas, when turkeys are worth 15 to 20 cents per pound, a farmer ought to realize that there is money in raising turkeys. After the first few weeks of their lives, it takes but little grain to keep turkeys in healthful condition, as their food consists mostly of the bugs and insects that they gather. A little extra feed is needed at fattening time, but outside of that their gain is clear profit. It costs a fourth as much more to raise a pound of pork than a pound of turkey, and you don't run the risk of losing the whole bunch with cholera. Then the care of them is inconsequential compared to the feeding and care of hogs. More turkeys on the farm would certainly increase the income.

The same arguments apply to geese. They are great foragers and get most of their living by grazing in out-of-the-way places, and proving to be the scavengers of the farm by picking up the stray food particles that are laying here and there and everywhere, which, if not otherwise disposed of, would be a source of discomfort, if not of ill health, to everybody on the farm. Geese are very hardy and are immune from all diseases that afflict chickens and turkeys. They are easily raised and need hardly any care after they are a few weeks old. There is always a good demand in the market for prime young geese, and an especial demand for them at Christmas. Their feathers also are very valuable, and these can be picked twice a year. More geese on the farm would mean more money in the farmer's pocketbook.

A Farm Flock of Leghorns.

Mr. Kohler, in an article published in KANSAS FARMER earlier in the year, tells us about the heavy egg yield of his flock of 50 Rhode Island Red hens during the month beginning about the middle of March and ending the same time in April, which is the hen's best laying month.

What did they do in the months of January and February, or during the first six months of the year? I would like very much to have Mr. Kohler answer through the columns of KANSAS FARMER.

While I frankly admit that the Rhode Island Reds are good chickens, good, fair layers, and good sitters and mothers, yet all experiment stations give the preference to the White Leghorns as layers.

In the six months beginning January 1 and ending June 30 my flock of 160 Rose Comb White Leghorns laid 14,555 eggs—90 155/160 eggs to the hen—which is a good record for a farm flock, and I think will compare favorably with Mr. Kohler's Rhode Island Reds that perhaps he fed purposely for laying, while I only gave my flock very ordinary care, as I am a farmer's wife and have not the

time to give them any extra attention beyond keeping nests and perches clean and keeping fresh water within easy reach at all times. They were fed but little in warm weather, as they forage a large portion of their food, which keeps them healthy.

The houses in which hens are kept should be kept clean, especially in winter. The use of drop boards under all perches lessens the labor of removing droppings and leaves the floor space for the distribution of straw and litter in which to scatter their feed, which, when the weather is cold, affords them the necessary exercise to keep them in good laying condition.

I hope to have 200 hens in my flock in 1912, and I think I am excusable for the pride I take in my flock of "Peerless Layers," which are direct descendants of the "White Elephants."

The White Leghorns are a pretty, graceful breed, of uniform size and color, and are superior to the Brown Leghorns in size, and I think they lay a larger egg. They also breed truer to color, while the Rose Comb is given the preference over the Single Comb on account of the size, which is small and compact and seldom or never frozen.

One lady who purchased eggs from me in the latter part of February reports pullets laying in August, which certainly speaks well for the early laying qualities of the Rose Comb White Leghorns.

One gleans a great deal of useful information from the pages of KANSAS FARMER in regard to the care of poultry; one also gets good and quick returns from an ad put in the FARMER. I inserted an ad in KANSAS FARMER last year which sold almost my entire flock of cockerels, and I will have another ad in the FARMER for cockerels next month.

Feeding the Laying Pullets.

The feed of all adult birds, whether pullets or not, consists of two essential parts: (a) the whole or cracked grains scattered in the litter, and (b) the mixture of dry ground grains which has come to be generally known as a dry mash. These two component parts of the ration and the methods of feeding them will be considered separately. In addition to the grains and dry mash, oyster shell, dry cracked bone, grit, and charcoal are kept in slatted troughs, and are accessible at all times. Plenty of clean water is furnished. About five pounds of clover hay cut into 1/2-inch lengths is fed dry daily to each 100 birds in winter. When the wheat, oats, and cracked corn are given, the birds are always ready and anxious for them, and they scratch in the litter for the very last kernel before going to the trough where an abundance of feed is in store.

It is very evident that the hens like the broken and whole grains better than the mixture of the fine, dry materials; yet they by no means dislike the latter, for they help themselves to it, a mouthful or two at a time, whenever they seem to need it, and never go to bed with empty crops, so far as noted. They apparently do not like it well enough to gorge themselves with it, and sit down, loaf, get overfat, and lay soft-shelled eggs, as is so commonly the case with Plymouth Rocks when they are given warm morning mash in troughs.

Some of the advantages of this method of feeding are that the mash is put in the hoppers at any convenient time, only guarding against an exhaustion of the supply, and the entire avoidance of the mobbing that always occurs at trough feeding when that is made a meal of the day, whether it be at morning or evening. There are no tailings to be gathered up or wasted, as is common when a full meal of mash is given at night. The labor is very much less, enabling a person to care for more birds than when the regular evening meal is given.

Taking first the dry grains, the following may be said in regard to the method in which they are fed. Early in the morning for each 100 hens four quarts of whole corn is scattered on the litter, which is six to eight inches deep on the floor. This is not mixed into the

Sam Thompson's Big 1912 Incubator Offer.

Fairest and Squarest Offer Ever Made

Last year I surprised everybody by guaranteeing my incubator to hatch 90% or better. It made other manufacturers take notice. No one believed an incubator could be built to make good on such a guarantee. This year I repeat the offer because the Fairfield made good.

I Want Every Reader to Try My Fairfield 42 Days at My Risk

That's the quickest way to convince you that the Fairfield is the best, easiest of looking, operating machine in the world. The incubator that makes chicken production a sure thing. Your money back if it fails to make good.

90% Hatches Guaranteed

Because the Fairfield is made of finest Calif. redwood. Has perfect heating system and roomy nursery.

Write for My Free Catalog

Let me tell you more about this wonderful incubator. Let me send you full particulars about my 90% hatch guarantee and 2 hatch trial offer.

S. C. Thompson, Pres. Nebraska Inc. Co.,
57 Main Street, Fairfield, Nebraska.

TO TRAPPERS!

Stephens' **New "Trappers Guide" IS FREE!**

TO YOU! This book was written by an expert and is chock full of valuable tips and information. How to make bigger catches and get better prices for Furs and Hides. **WHITE TODAY.**

Dept O

A. B. STEPHENS & CO
KANSAS CITY, MO.

LET US TAN YOUR HIDE.

Cattle or Horse hide, Calf, Dog, Deer, or any kind of skin with hair or fur on. We make them soft, light, odorless, wind, moth and water proof, and make them into coats (for men or women) robes, rugs or gloves when so ordered.

Your fur goods will cost you less than to buy them, and be worth more. Send three or more cow or horse hides in one shipment from anywhere east of Denver and we pay the freight both ways.

Get our illustrated catalog which gives prices of tanning, taxidermy and head mounting. Also prices of fur goods, and big mounted game heads we sell.

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

We Pay Highest Cash Prices

We are the oldest established Hide House in Kansas City—have been paying highest cash prices and always giving our customers a square deal on every shipment since 1870. Ship us all your

HIDES

We need all you can send, right now. We pay the prices we quote; give liberal assortment, do not undergrade, and remit cash in full same day shipment is received. We charge no commission. Send today for our free price bulletin quoting highest cash prices which we actually pay, free tags and full particulars.

M. Lyon & Co., 238 Delaware St.,
KANSAS CITY, MO.

TRAPPERS WE BUY FOR CASH

And pay highest prices for Coon, Mink, Skunk, Possum, Muskrat, and all other Furs, Hides and Ginseng. Best facilities in America. Send for Free Price List and Shipping Tags. No commission charged.

ROGERS FUR COMPANY
301 N. Main St. St. Louis, Mo.

Hides Tanned

The Gornie way is always satisfactory, because my process leaves the hide soft and pliable and just right to make a fine, serviceable fur coat or robe. Ship your hides to me and take no chances. I will make your robe or coat and guarantee them by my \$10,000 bond. Write for free catalog.

Gornie Tanning Co., 128 2d St., Des Moines, Iowa.

Big Money For Furs

Get more \$\$\$ for your furs, no matter where you are. We issue a big, free illustrated price list and market report. Tell us why we can pay more for furs and prove it by letters from satisfied shippers in every state. Send for it today—now—before you forget. Different from anything you ever saw. We'll send with it, also, our free Trappers' Guide, tells how to trap, take care of and tan furs. All sent FREE for the asking. Address

CORRY HIDE & FUR CO., 94 Main Street,
CORRY, Pa.

PFILE'S 65 Varieties

LAND and Water Fowls. Farm-raised stock, with eggs in season. Send 2c for my valuable illustrated descriptive Poultry Book for 1912. Write Henry Pfile, Box 921, Freeport, Ill.

litter, for the straw is dry and light, and enough of the grain is hidden so the birds commence scratching for it almost immediately. At 10 o'clock they are fed in the same way two quarts of wheat and two quarts of oats. This is all of the regular feeding that is done.

The litter which the station now uses for its houses in preference to all others which have been tried, consists of a mixture of dry pine shavings and straw. The shavings can be obtained in this part of the country from box mills in bales, which are sold at a price of about 10 cents per bale. These shavings are spread on the floor of the pen to a depth of some five to seven inches. From six to eight bales will cover the floor of a pen which accommodates from 100 to 125 birds. On top of these shavings is spread a thin layer of straw. Straw which has not been baled is preferred because it is less liable to be broken and will consequently wear longer in the pen. This combination of straw and shavings gives excellent satisfaction as a litter. The straw serves the purpose of protecting the shavings so that they last a longer time than would otherwise be the case before they are finally worked up into a mass of fine material which packs down and becomes damp. The shavings become damp much less quickly than does a litter of straw alone. This is because they are finer, and the birds can keep them worked over much more thoroughly. This constantly exposes and dries out new portions of the mass of litter. Using this combination of shavings and straw it is not usually found necessary to change the litter in the pens oftener than once in three months.

It is in regard to the dry mash portion of the ration in which the changes already referred to have been made. The dry mash which was formerly used at the station had the following composition:

	Pounds.
Wheat bran	200
Corn meal	100
Middlings	100
Gluten meal or brewers' grains	100
Linseed meal	100
Beef scrap	100

The experience with the station with this mash extending as it has over a number of years has indicated that it was somewhat too rich. The relatively large amount of such concentrated feeds as linseed meal and gluten meal seemed to make too rich a ration for the well-being of the fowls. During the years when this mash was fed more or less difficulty was always experienced with liver troubles in the birds. Birds died with all the symptoms that would be expected to come from indigestion arising from feeding too rich food.

In planning the new dry mash ration consideration was given to the physiological conditions under which the birds developed and under which they were placed in the laying houses. It is evident that the bringing of the birds in from the range upon which they have grown from little chickens, into the laying houses, is apt to be a very violent and abrupt transition. It has seemed in studying the birds in the fall of the year that this change was an important time in the life of the bird, and that the results during the subsequent winter depended much upon the way the transition from range conditions to the laying house was made. It seemed advisable, both on general grounds and from observation of the birds themselves, to make this change as gradual as possible. With this idea in mind the pullets have been brought into the houses from the range much earlier during the past few years than was the custom before. It is the custom at the present time to bring in the pullets from the range as soon as possible after the first of September.

When the pullets are brought in as early as this it is not, of course, advisable to shut them up entirely in the house at once. On the contrary, the work is planned in such a way that there is always a freshly seeded yard full of green grass for the birds to run in after they are brought into the house until cold weather sets in in the fall. In other words, the birds are brought from free range into a condition of restricted range, but with better pasturage on the restricted than on free range. The yards are freshly seeded and have not been trampled down or burned and dried out by the sun, as is the grass on the open range from which the birds are taken. In this way the attempt is made to have the transition from open range conditions to house conditions as gradual as possible. After about two months, or occasionally even a little longer of restricted range, the birds are

finally shut up in the curtain front house for the winter season.

Further, in accordance with this idea of gradual change, it is thought wise not to put the pullets which are brought in from the free range condition abruptly onto the heavy, forced-laying mash which it seems to be necessary for them to have during the winter months if they are to do their best in the way of egg production. It has been said that a hen will not lay her best unless she is on full feeding. This is quite true, but it is probably equally true that a great deal of harm can be done to a pullet in regard to her future egg production by abruptly bringing her from free range conditions into restricted yards or to entire confinement in the house and putting her on a heavy, rich laying mash like the one which was formerly fed at this station. On the contrary, it seems reasonable to bring the birds more gradually on to this rich ration. It is in accordance with this idea that the dry mash feed which is now used at the station has been planned. The formulas and methods of feeding this new dry mash are given below. It will be noted that the mash is made richer in successive months. These formulas are planned on the assumption that the pullets will be brought into the winter laying quarters some time during the month of September. The composition of the dry mash fed to pullets is as follows:

First month in laying house (September)—	
Bran	300 lbs.
Corn meal	100 lbs.
Middlings	100 lbs.
Meat scrap	100 lbs.
Second month in laying house (October)—	
Bran	200 lbs.
Corn meal	100 lbs.
Middlings	100 lbs.
Gluten meal	100 lbs.
Meat scrap	100 lbs.
Third month in the laying house (November)—	

The mash has the same composition as that of the second month given above with the addition of 50 pounds of linseed meal.

Fourth month in the laying house—
The mash has the same composition as that of the second month given above.

Fifth month in the laying house—
The mash has the same composition as that of the third month given above.

From this time on 50 pounds of linseed meal are put into the mash as given for the second month above every alternate month. That is to say, one month linseed meal is fed and the next month it is not.

This dry mash made as described above is kept before the birds all the time in open hoppers of the type which has been described in previous publications from this station.

The advantage which it is believed have resulted from this method of feeding the laying pullets are twofold; first, in the good effect on the vitality of the birds, and, second, in its effect on the evenness of egg production during the winter months. It is a fact well known to poultrymen that if pullets are too rapidly forced for egg production in the early fall there is a marked tendency for them to moult during the winter at just the time when they should be doing their best work in egg production. Since adopting the method of feeding the pullets described above, not only have the birds been much freer of digestive troubles and diseases involving the liver, but also there has been no moulting in the early winter after a short spurt of egg production in the fall months. On the contrary the egg production on this plan begins in September and gradually and steadily increases through the winter months. During the past two years while this method of feeding has been used, there has been hardly a pullet in winter moult, whereas on the old system of feeding such birds were common every year.—Maine Experiment Station.

Aids in Selecting Breeding Stock.

The establishment and maintenance of a successful breeding herd means that the manager or owner must constantly be culling his stock. At the outset he must select the entire group; and as offspring are produced, selections must annually be made from these to replace the animals culled out and turned on the general market. Without a few permanent, well-fixed and definite rules for selections, few men can make any real headway in improving and building up their herds. Some men undertake to establish and maintain herds by haphazard selections, and then wonder why they do not succeed.

When it comes to actually picking out animals, says Ellis Rail in the Breeders'

HIDES AND FURS

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 25 years could not stand if it did not satisfy its shippers. Try us and see. Write for full list and tags. See quotations on market page.
JAS. C. SMITH HIDE CO.
Topeka, Kan.
St. Joe, Mo.; Wichita, Kan.; Grand Island, Neb.; Joplin, Mo.



WHITE PLYMOUTH ROCKS BEST ALL PURPOSE FOWLS IN EXISTENCE
GOOD TO LAY, GOOD TO EAT, AND GOOD TO LOOK AT.
White P. Rocks hold the record for egg laying over all other breeds. 289 eggs each in a year for eight pullets is the record, which has never been approached by any other variety. I have bred W. P. Rocks exclusively for 20 years and have some fine specimens of the breed. I sell eggs at "live and let live" prices, \$2 per 15, \$5 per 45 and I prepay expressage to any express office in the United States.
THOMAS OWEN Sta. B. **TOPEKA, KAN.**

GET A SQUARE DEAL.
Ship to Oldest House in New York. **RAW FURS**
Send for Price List.
OTTO WAGNER, 138 West 26th Street, New York City. Established 1876.

Gazette, it is extremely hard to put one point over all others as being of first importance, but there is nothing of greater importance than type. One of the first requisites to successful selection is to have a definite type in mind and to stick to it. As to what that type shall be, each man must choose for himself. The popular demand to some extent, and utility in particular, should indicate to him a desirable type. The matter of importance is to decide upon some definite tangible type, and have it so clearly in mind that it will always be recognized. Then select animals of that type and nothing else, thus securing uniformity in the herd and in the offspring. Probably any one may recall individuals who have concluded without much thought that they would establish a breeding herd. They went out here and there to buy and did buy many good animals. But when these animals were assembled, they were of many types and made anything but a desirable foundation. Likewise their offspring presented the same wide range of variability. The principal reason for such results usually is that the man who got the herd together had no definite idea of what he wanted except what he vaguely defined as a good animal. The consequences could be nothing else than an incompatibility of types at mating time, and therefore almost every sort of offspring imaginable. The mating of different types within a breed is sure to cause variation in the offspring. This is a point that is often overlooked. Too many men fail to realize that nearly all our breeds of live stock have large enough numbers to present several different types. The breeding of animals simply because they are registered in the same herd book is no indication of judicious breeding.

Once a type is intelligently chosen, it should be adhered to rigidly. There is nothing else where it is a better policy to adhere to your standard than in the breeding business. The history of our modern breeds is replete with the names of men who fixed in their minds an ideal and strove constantly to attain it, never turning to the right nor to the left. This seems to have been one of the largest factors for success in the work of Bakewell, that remarkable pioneer of modern breeding practices. He early conceived a definite idea of what he might do, and he worked incessantly toward his ideal type. Cruickshanks' conception of the Scotch shorthorn was idealized in his mind as a beginner in the cattle business, but it was thirty years later ere he began to realize his hopes. Had he not shown the persistence of Job and held steadfastly to his idea of type through all those thirty years the whole cattle world would have been the loser. Successful breeders of practically all times bear testimony to the fact that not only are definite ideals necessary, but constant adherence to them is of equal importance.

In fixing a standard and in selecting to fit it, the demands of the time and the probable demands of the future must be given due consideration. Rare indeed is that man who can produce something new and also create a demand for it. The financial aspect of the breeding venture always must be observed, and part of the wisdom of selecting rightly is shown by him who knows when to discard sound biological principles because of their too great cost. The thing of large value to any prospective or actual breeder is a full knowledge of the history of the breed he contemplates using. Every breed has its faults as well as its good points, and a complete knowledge of these is essential to accuracy in following a standard. A thor-

ALBERTA'S GRAIN CROP
Reports from the grain fields of Alberta, Western Canada, show splendid yields of wheat, oats and barley.
Many farmers have paid for their land out of the proceeds of the crop of 1911.
At exhibitions throughout the U. S. wherever the grain from this Province has been shown it has received the highest commendation.
Free Homesteads of 160 acres and adjoining pre-emptions of 160 acres (at \$3 per acre) are to be had in the choicest districts. Schools convenient, climate excellent, soil of the very best, railways close at hand, building lumber cheap, fuel easy to get and reasonable in price, water easily procured, mixed farming a great success.
Write us for best place for settlement, settlers' low railway rates, pamphlet "Last Best West," and other information, to Supt. of Immigration, Ottawa, Can., or to Can. Gov. Agt.
Canadian Government Agent
125 W. 9th St. Kansas City, Mo.

Johnson's Big 1912 Book
That he calls **"POULTRY SERMONS"**
—READY FOR YOU
Send a postal sure this time for Johnson's book—the best and biggest ever in 36 years—hundreds of actual new photographs showing
Old Trusty Incubators
Used by many hundreds of thousands of most successful poultry raisers.
40, 60 or 90 Days' Trial
Under \$10 now, 10 Years' Guarantee.
Johnson pays the Freight east of Rockies. 75 per cent bigger hat to be guaranteed.
M. M. JOHNSON (Incubator Man) Clay Center, Neb.

VACCINATE YOUR HOGS
The Simultaneous Method is Strongly Advised.
THE HUEBEN SERUM CO.,
Dr. F. H. Hueben, President and Laboratory Supervisor.
Clay W. Stephenson, Secretary and Treasurer.
Producers of Highly Potent and Reliable
ANTI - CHOLERA SERUM
All serum subjected to severe test before distribution.
Room 72, Live Stock Exchange, **KANSAS CITY, MO.**

Grind Your **"BULL DOG"** Feed on the **TEN DAYS FREE**
You can grind 80 bu. grain to table meal with one gal. of gasoline. 1 set of rollers will grind 5000 bu. of cob and corn. "Bull Dog" grinding rollers are only three inches in diameter which accounts for light running. Get our FREE Catalogue and Samples. Address **LETZ MFG. COMPANY, 250 E. ROAD, CROWN POINT IND**

ough knowledge of the breed from its beginning up brings clearly to the mind of a careful student the points which are most valuable and also those which are most undesirable. The knowledge of blood-lines and of the methods of the great constructive improvers of the breed emphasizes their bearing upon successful production. Taken altogether a thorough study of the breed history will do much toward indicating proper ideals. Such ideals carefully chosen and then adhered to constantly will do much toward putting beginners on the way to success.

You will want the 1912 Coca-Cola Girl Calendar



We will send you this beautiful Calendar, lithographed in sixteen colors, on receipt of 2¢ to cover postage.

The Coca-Cola girl is more fascinating than ever—you will like her. She will remind you that whenever you're tired or thirsty to

Drink



the one beverage that will refresh you, quench your thirst and please your palate.

Our new free booklet, telling of Coca-Cola vindication at Chattanooga, for the asking.

THE COCA-COLA CO.,
P. O. Box 1734
Atlanta, Ga.

Whenever you see an Arrow think of Coca-Cola.

HOME CIRCLE



With Christmas but a short time away everyone is more or less busy with their plans for that happy occasion, and not infrequently we hear the complaint that ideas are lacking, and in that case a suggestion or two is of great benefit. The woman who is handy with her needle or crochet book is indeed fortunate, for so many beautiful things can be made in this way. And oftentimes with not a great deal of work and with small expense. To housekeepers all kinds of beautiful linens appeal strongly. And by the addition of an initial or two carefully embroidered, a plain towel or pair of pillow slips or a sheet is given a touch of individuality that is most gratifying. Of course they can be made more elaborate by adding a scalloped edge or by embroidering a design above the hem, or scallops, or by setting in lace, either torchon or hand crocheted. This is also true for a set of table linen or for dresser sets. For the latter, ribbon and lace put together in alternating strips, using a ribbon four or five inches wide, are most attractive. Also creton can be used to good advantage for dresser and table covers. When using creton it is a good plan to use a plain material for the body of the cover and trim this with a band of the creton set on above the hem. To make this a little more elaborate a lace edge could be added. Cunning little trays for the dresser can be made with a little ribbon and a pair of embroidery hoops in the following manner: After selecting your hoops, either round or oval, get your ribbon so that it will be wide enough to extend beyond the edge of your hoops, for round hoops six inches in diameter get ribbon nine inches wide and twelve inches long. Fold the ribbon through the middle lengthwise and then sew straight across the ends on the

wrong side. Then turn the ends right side out and you will have a mitered end. Now cover your hoops separately with a narrow ribbon and put them over your ribbon just as you would if you were going to embroider it, only have the right side of the ribbon on what is generally the wrong side of the hoops. A small bow or rosette tacked on where the ribbon on the inner hoop is joined covers the seam and adds the finishing touch to the tray. Bags of all kinds and descriptions are very popular this fall. They are plain or fancy and of ribbon, lace or linen, and some of tapestry. Sofa pillows are always acceptable, for who ever had enough cushions? And they can be made so attractive. Aprons are usually welcomed, from the plain work apron to her more elaborate sisters that look almost too dainty to be used. Jabots and collars and neck bows are, always good, and often lovely ones can be made from a bit of linen and a scrap of lace too small to do anything else with. Handkerchiefs also are always acceptable, and who doesn't like a dainty or sheer handkerchief? Handkerchief linen can be gotten at a reasonable price, and either by hemstitching or embroidering the edge or by rolling a hem and whipping a narrow lace edge onto it and adding the initials, the finished article can be made lovely as well as useful. Dainty undergarments appeal to all, and here again the woman who is an artist with her needle can find an unlimited field, and no one would scorn a pretty pair of silk hose, and nowadays a very good quality can be had at a reasonable price. So I might go on mentioning things that could be made, and the real question is to whom shall I give the different things. For the real joy of giving is to feel that you gave each one something that is truly appropriate to their needs and taste.

Some Christmas Suggestions

No. 1835.—A Dainty Holly Design for an Oblong Pin Cushion.

The holly design may be worked in solid or outline embroidery and both sides (two parts are given with this design)



buttonhole stitched on the edge and laced together with ribbon, run through worked eyelets. Stamped on linen, 35 cents; perforated pattern, 25 cents; transfer pattern, 10 cents.

No. 2102.—Up-to-Date Stamping Outfit.

This is the finest and most complete stamping outfit that has yet been placed upon the market. Perforated on fine quality of bond paper and containing all of the articles listed below: Baby's bib, baby's bootie, script word "Baby,"

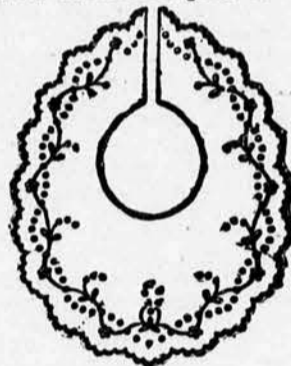


script word "Alphabet" (2-inch letters), shirtwaist set, corset cover, tie end, towel border, Dutch collar, sleeve ornament (star and bars), 12-inch centerpiece, two scallop borders, butterfly, jabot, neckwear, pin cushion, bow knot, 1 spray pansy, 3 spray carnations, 1 spray

wheat, 1 spray poppy, 3 spray violets, 3 spray holly, 3 spray maidenhair fern, 1 spray wild rose, 1 spray double rose, 2 spray lily of the valley, 2 spray daisy, 3 spray forget-me-nots. These designs can be used an unlimited number of times. Price of outfit complete, 40 cents.

No. 1718.—Baby Bib, to be Worked in Eyelet Embroidery.

Stamped on linen, price 25 cents; stamped on flannelette, price 15 cents;



perforated pattern, 10 cents; transfer pattern, 5 cents.

No. 570.—Sofa Pillow Top.

This portrays an effective and desirable pattern. A grape design for development in outline embroidery. Size, 18x



18. Stamped on art cloth, 40 cents; perforated pattern, 25 cents; transfer pattern, 10 cents.

Guaranteed Fur Robes

THE PERFECTION FUR ROBE \$5 to \$20

This Label is your Positive Protection—It Means Satisfaction or Money Back

Sold by all live dealers at

PRICES FROM \$5.00 to \$20.00

Your dealer has—or can get—Perfection Brand Guaranteed Fur Robes. Insist on getting them—they wear best and are guaranteed for one year.

All robes have newly invented wear-proof border—and colored robes all have natural leather.

Look for the Guarantee Bond on each robe, and woven label shown above.

Perfection Fur Robe Co.,
Manufacturers Chicago, Ill.

WICHITA BUSINESS COLLEGE

ONE MONTH FREE.

So confident are we of our ability to satisfy every reasonable person who can and will do his part, that we cheerfully refund all tuition at the end of the first month to any student that is dissatisfied with our high standard of discipline and scholarship. Consider the class of students this insures.

WILL G. PRICE, Pres.,
114-116 North Market.
Phone—Market 1878.
WICHITA, KANSAS.

Strickler's TOPEKA BUSINESS COLLEGE

Superior, up-to-date methods, 25 years continued success. Students in every state in the U. S. A good position for every competent young man or woman. Write us. 111-13-15-17 East Eighth St., Topeka, Kan.

LEARN AUCTIONEERING at the world's greatest school and become independent. Winter term opens December 11—the Monday following the International Live Stock Show. Tuition includes four days' free admission to the show. Write for catalog today. You can become a first class auctioneer. We have fourteen noted instructors and lecturers. Address

ORVAL A. JONES, MGR.,
2856 Washington Blvd., Chicago, Illinois.
Carey M. Jones, Pres.

WE TEACH YOU

to operate and repair automobiles in our fully equipped modern shop, giving training in vulcanizing, drill press and lathe practice, qualifying you in six weeks. Address Lincoln Auto School, 2354 O St. Lincoln, Neb.

Do Not Attend Business College Until

You see our 76-page beautifully illustrated catalogue. A business education counts when making application for a position. The business college graduate is always given first consideration. We furnish graduate positions anywhere in America. Catalogue free. Salt City Business College, Box 353-B, Hutchinson, Kan.

DOUGHERTY'S

Business Training

Emporia Business College

Clean moral surroundings. Special courses for farmer boys and girls. Free catalog. Emporia, Kans., Box F.

KANSAS CITY Business College

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

LAWRENCE Business College

Lawrence, Kansas.
Positions secured. Our big illustrated catalogue explaining everything is FREE. Address 1444 Mass. St.

WHY NOT HAVE A GOOD LIGHT? HERE IT IS!

Bright, Powerful, Economical, Odorless, Smokeless. Every one guaranteed. The Lamp is READ, WRITE and WORK by. Indispensable in your home. If your dealer hasn't got them send his name and address and we will mail as many as you want at 25c each. AGENTS WANTED EVERYWHERE.

THE STEEL MANTLE LIGHT CO., 338 Huron St. Toledo, O.

IT will pay you to come to our Department Manager's Sale from any part of Kansas. The lowest prices of the season are made on all lines of the best merchandise. We refund Railroad fare according to the amount of purchase.

The Mills Dry Goods Co.,
TOPEKA, KANSAS

Fine Christmas Rings

Gold Signet Rings for Christmas presents. Engraved with any initial. A limited number on hand. Early orders get them.

BARGAIN PRICE \$1.00

Warranted. Order from this ad, giving size, and initial wanted engraved. These rings are going fast. Order today, sure, if you want one.

WESTERN JEWELRY CO., TOPEKA, KAN.

PENNSYLVANIA BUCKWHEAT FLOUR, PURE AND WHITE

Made expressly for family use. Write for delivered price.

BERGIN & CO.,
Nanticoke, Pa.

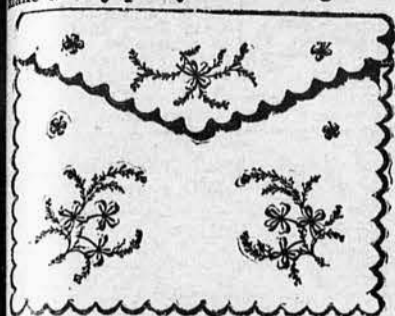
L. M. PENWELL

Funeral Director and Licensed Embalmer

511 QUINCY ST., TOPEKA, KAN.

20 Beautiful Assorted Colored Post Cards 10c
Your name in Gold on 12 Flower Post Cards 10c
Thanksgiving, Xmas or New Years
Extra High grade Colored Post Cards
United States Art, 150 Nassau St., N. Y. **10c**

No. 1795.—Night Dress Case.
Size, 18x30 inches. This case would make a very pretty and useful gift. To



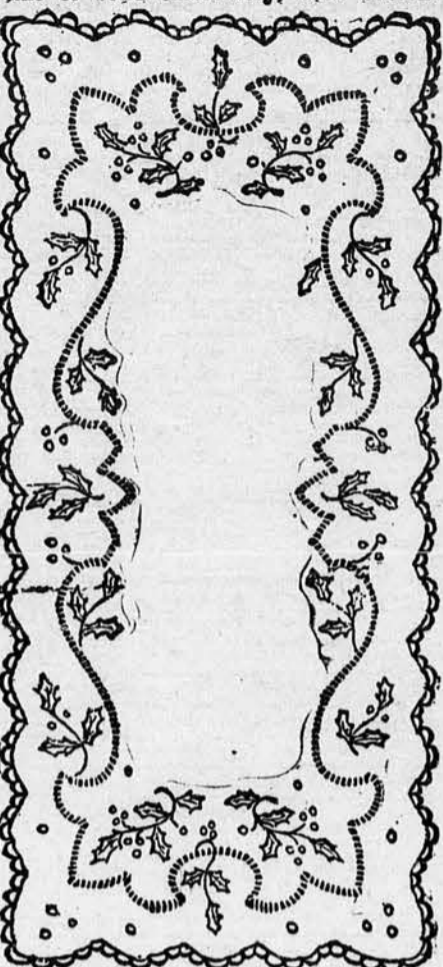
1795
executed in solid or outline embroidery with buttonhole edge. Stamped on linen, 45 cents; perforated pattern, 25 cents.

No. 200.—A Complete Set of Alphabets.
In three sizes— $\frac{1}{2}$ -inch, $1\frac{1}{2}$ inches, and 3 inches. A set of these three sizes in perforated form, 35 cents; in transfer form, 5 cents.



perforated form, 35 cents; in transfer form, 5 cents.

No. 1963.—Scarf in Holly Design.
Size, 18x34 inches. Adaptable for outline or solid embroidery, with button-



hole edge. Stamped on white linen, 60 cents; stamped on pure white linen, 85 cents; perforated pattern, 25 cents.

Uncle Pennywise Says:

Keep a-smiling, but don't get in the boss's way when he feels grouchy.

DAIRY HERD TESTS

One of the principal things which has served to give to Wisconsin and other states their prominence in dairy husbandry has been the dairy herd test. With such a test go the scales, the Babcock tester, better methods of feeding and care, and better breeding. The record associations have recognized the value of such work and have created

Rosalpha herd of Jerseys at Holton, Kan., has the credit of owning the first herd of Jersey cattle to be officially tested in Kansas.

Here is the official record, showing name and record number of cow, pounds of milk, fat test, pounds of fat and pounds of butter for each cow during the month of October, 1911.

	Lbs. Milk	Tests	Lbs. Fat	Lbs. Butter	
Areas of Silverdale.....	192855	544.0	5.77%	31.389	37.82
Multan's Coomassie L.....	258876	411.5	5.41%	22.262	26.822
Harriet of Edgewood.....	221670	549.6	7.04%	38.692	46.62
Phelia of Brondale.....	203220	510.6	5.73%	29.260	35.253
ate of Brondale.....	230670	517.5	5.62%	29.084	35.04
's Coomassie.....	198833	422.7	5.98%	25.278	31.66
Multan's Beauty.....	231914	589.0	6.27%	36.930	44.495
Wonder's Duchess.....	228527	527.6	6.95%	36.668	44.178
lenwood's Merry Maiden.....	250264	657.4	5.23%	34.382	41.424
ariquita of Brondale.....	190038	620.7	6.59%	40.908	49.287
ily of Brondale.....	179316	549.4	6.52%	35.821	43.158
The Warden's Mysette.....	258227	480.1	5.59%	26.838	32.334
erry of Riverside.....	231914	622.9	5.83%	36.315	43.753
stell H. 2nd.....	184683	509.4	5.10%	25.979	31.300
Minerva of Brondale.....	190022	690.3	5.18%	35.757	43.081
ly Bessie of Pine Ridge Farm.....	221337	810.2	4.83%	39.229	47.264
ern's Golden Hope.....	244419	445.4	5.92%	26.368	31.768
Margaret of Jersey Hill.....	204247	778.0	5.45%	42.401	51.085
onda of Brondale.....	246832	635.5	5.80%	36.859	44.408
lenwood's Pride.....	250266	730.7	5.71%	41.723	50.268
eter's Meysie.....	252711	627.0	5.45%	34.171	41.170
ama of Brondale.....	225263	317.5	6.05%	19.209	23.143
Margarite's Rose Maid.....	216983	298.3	5.45%	16.267	19.599
istinction's Star 3rd.....	256015	559.4	6.35%	35.522	42.798
Miss Blatch.....	219399	376.2	7.45%	28.027	33.767
ildred of Brondale.....	184829	539.4	6.75%	36.410	43.867
oomassie L's Last.....	198834	349.0	5.45%	19.021	22.916

Special records for the honor of such cows as equal or surpass a certain standard. The Holsteins have their A. R. O. and the Jerseys their R. M., and these records show some marvelous performances which are rendered official by the action of the dairy department of the State Agricultural College, which sends a representative to test the herd at least once a month for a year. In this the milkings, weights, records and tests are carefully overlooked by the officer, and business work and chance entirely eliminated.

Prior to this time Kansas has had no herd of dairy cattle which has been tested in this manner. It has remained for a young man, who was himself a student of our Agricultural College, to take the lead in this matter and have his herd tested officially for a year by a college official. Ralph J. Lincott, owner of the

This includes every cow in the herd that has ever had a calf or come to her milk, none left out on account of being dry or nearly so, or for any reason. The average time since they had been fresh was 181 days. One cow was 14 years old, another 13 years old; six were two-year-old heifers of an average of 27 months 22 days; balance young cows. These facts account for a few that were apparently not doing well, but were upon the whole doing creditable work. In feed they had one pound of grain composed of equal parts of wheat, bran and corn chop, by weight, for every three pounds of milk that they gave, and one light feed of alfalfa hay per day; were on very short pasture. Had ordinary herd care, feed and attention; were not doing as well as they did last spring before the hot weather came, but better than during the excessively hot summer.

Kill Your Hogs

More money this year in SAUSAGE and LARD than from selling on the hoof. Easily made with an

ENTERPRISE

Sausage Stuffer and Lard Press

The one machine that both perfectly stuffs sausage and perfectly presses lard. Gives you all of the lard. Stuffs sausage so that it keeps. Patent corrugated spout prevents air from entering the casing. An Enterprise Sausage Stuffer and Lard Press will earn itself out this fall and will stay by you for many years to come. Built for hard service and so accurate that every part works smoothly. Instantly changed to a lard press—can be used also as a fruit press.

4-quart size, \$5.50. At hardware and general stores. Be sure to look for the name Enterprise.

ENTERPRISE MFG. CO. OF PA.
Dept. 56 Philadelphia

This patent corrugated spout prevents air from entering the casing and spoiling the sausage.

Enterprise Meat and Food Chopper—cuts like shears—does not mangle the food. Four-bladed steel knives revolve against perforated steel plates.

Enterprise Bone, Shell and Corn Mill—quickly pays for itself in healthy poultry and increased egg yield.

Send 4 cents in stamps for our recipe book, "The Enterprising Housekeeper." Tells how to make 200 economical, tasty dishes.

KANSAS WESLEYAN BUSINESS COLLEGE

THE EFFICIENT SCHOOL FOR BANKS AND RAILROADS.

Furnishes more Bankers, Civil Service help, Commercial Teachers, R. R. Stenographers, and Telegraphers, than any other school. U. P. contracts to take all our male operators, and allow salary while learning. We guarantee position for complete course or refund tuition. Twenty instructors, eighteen rooms, one thousand students. TERMS REASONABLE.

NEW FEATURES—Farm Accounting, McCaskey Register, Wireless Telegraphy. Write for catalog and Free Tuition Prize Offer. No agents out to get you to sign up. Address, T. W. ROACH, Pres. 201 S. Santa Fe, Salina, Kansas.

Something For Our Lady Readers

Fine Cream Whip and Egg Beater Free

The accompanying miniature illustration will give you a very faint idea of the simplicity and practical value of this new household article, needed by every woman in her kitchen.

It is operated with one hand by simply bearing down on the handle and working same up and down while you hold the cup or receptacle with the other hand. It is positively the handiest, neatest and best cream- whip and egg-beater ever manufactured. No cranks or gears to get out of order and it will last a lifetime.

We send the KANSAS FARMER on trial ten weeks for ten cents. To any lady reader of KANSAS FARMER who will send us only two of these trial subscriptions at ten cents each and five cents extra for postage (25 cents in all) we will send one of these Egg Beaters, prepaid. If you don't want to solicit these two subscriptions, send the names of two of your friends to whom you would like to have KANSAS FARMER sent for ten weeks.

Address SUBSCRIPTION DEPARTMENT, KANSAS FARMER, TOPEKA, KANSAS.

The average amount of butter produced per cow for the month was 38.455 pounds, an average production of 461.46 pounds of butter per cow for a year. Counting butter worth 30 cents per pound, it would have brought \$138.44 per cow for the year. To this we should add the value of the skim milk and the value of the manure produced, and deduct the cost of feed, labor, etc. We would still have a most creditable balance left in favor of the cow.

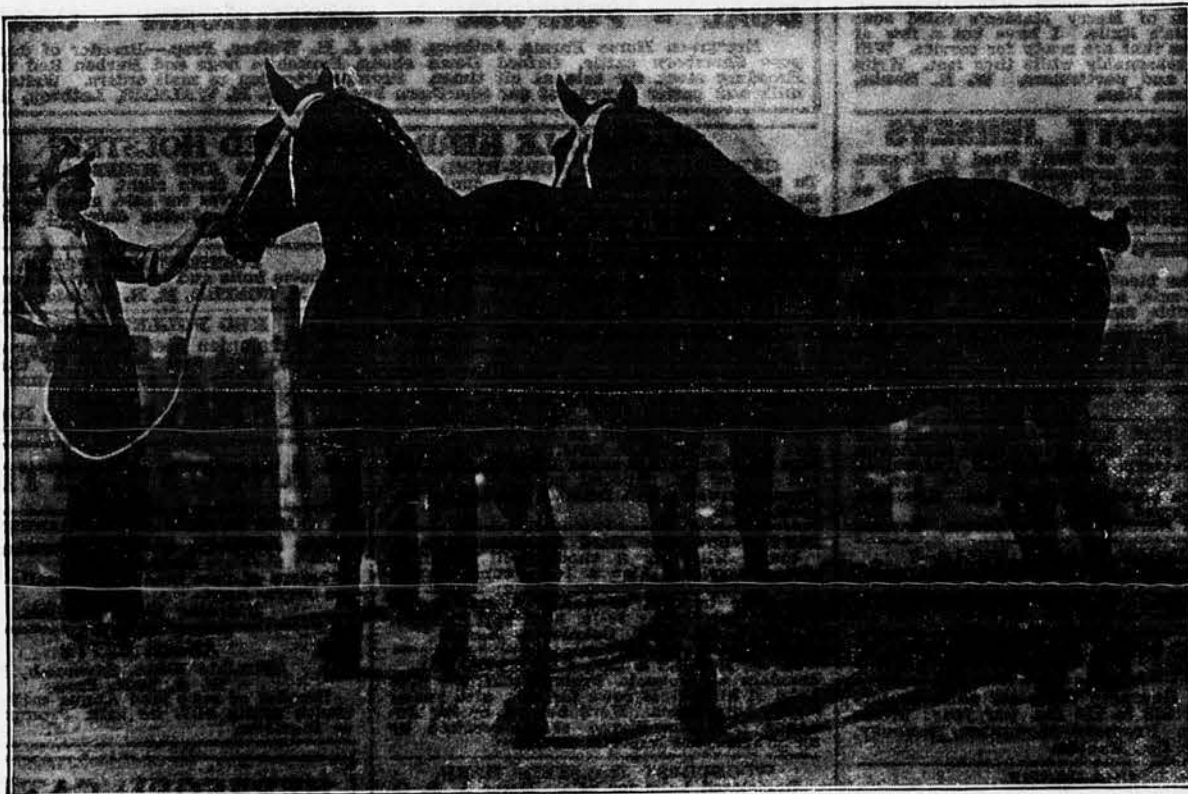
These tests were authenticated by Prof. O. E. Reed, head of the dairy department of the Kansas State Agricultural College, and made by Mr. Stanley Combs, their tester.

Kansas never had so much rough feed as she has this fall, and the farmers are

finding it extremely difficult to get enough of suitable cattle to use it up. Even in Butler and Chase counties, which have long been the banner cattle counties, the feeders are obliged to go to Kansas City to get their stock. Nothing could better emphasize the present shortage of cattle than the fact that the banner cattle counties of Kansas, with more feed than was ever known in their previous history, have to go away from home and pay high prices for their feeders. Somebody must raise these cattle with which to supply the nation and to make good this deficiency.

Breeders here have a golden opportunity before them. Not only is our population increasing daily, which causes an increasing demand for beef, but there is a large deficiency to make up. The breeder is the man to do it.

J. C. ROBISON'S THIRTEENTH ANNUAL SALE OF SIXTY



**Registered
Percheron
Stallions
Mares and Colts**
AT THE
**Whitewater Falls
Stock Farm**
TOWANDA, KANSAS

This sale will include more mature Stallions and Mares, either sired by Casino or bred to him, than have ever been included in any of the former sales. Part of my 1911 show herd, including the Grand Champion Mare, RUTH, and her yearling Stallion will be listed for this sale.

DAUGHTERS OF CASINO AND STATE FAIR CHAMPIONS.

TWENTY STALLIONS, FORTY MARES, PRIZE WINNERS, PROVEN BREEDERS, SONS AND DAUGHTERS OF WORLD'S FAIR WINNERS.

Sale will be held at SALE PAVILION on the FARM, **THURSDAY, DEC. 28, 1911**

Send for catalogue to

J. C. ROBISON, Box E, TOWANDA, KANSAS

AUCTIONEERS—HARRIMAN, SNYDER, ARNOLD, SEELEY.

100 Registered Herefords At Auction Dispersion Sale 100



AT FARM NEAR
ALTA VISTA, KANSAS

**Tuesday,
Dec. 19th, 1911**

The offering is one of the best of the season and will include about 40 Double Standard Poll Herefords, including the Poll Herd Bull, Poll Dandy, and 10 young bulls. The remainder choice females, among them a number of outstanding good cows and heifers. The remainder of the offering consists of 22 cows with calves at foot or bred, 16 yearling heifers, 9 spring heifer calves and 8 young bulls. The offering, taken as a whole, is an extra good one. The herd was established nearly 30 years ago with stock from the very best herds, and no culls have ever remained in the herd for breeding stock. The Poll stock was purchased from the best eastern herds, and are among my best cattle. All of the cattle are young. Last spring I sold off a carload of my oldest cows. The herd is rich in the blood of Anxiety 4th and other sires that have made the breed famous. I have sold my farm, and these cattle will be sold without reserve. Write for catalog. Free transportation to and from farm. Sale starts promptly at 10 a. m.

John W. Naylor, Alta Vista, Ks.

Auctioneer—Col. L. R. Brady.

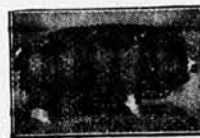
Poland Bred Sow Sale

**50 HEAD OF BRED
SOWS AND GILTS 50**

SALE TO BE HELD AT ST. JOHN, KANSAS

Saturday, Dec. 16, 1911

I am selling some of my best brood sows, such as



Opal, by Meddler 2nd, a litter sisters to Meddler Chief, grand champion Kansas State Fair, 1909; Sallie Meddler, by Meddler, dam Lady May, by



Chief Perf. 2nd; 1 On the Spot sow, dam by Spellbinder; 1 boar by Meddler's Sunshine; 14 spring yearling gilts by On the Spot and Gem's Spell and out of my herd sows; five have litters by their sides; 10 fall yearling gilts by Gem's Spell, Gem's Thicket, On the Spot and One Price; 7 fall boars by the same sires; 5 spring boars by Short Grass.

Most all the sows and gilts will be bred to King Darkness, our herd boar, for spring litters. This will be an opportunity that comes only once in a lifetime, and we ask farmers and breeders to come and get some of this good seed. Catalogs are ready to mail out. Sale held right in town and everything sold on an absolute guarantee. Come and spend a day with us. O. W. Devine will represent Kansas Farmer. Any bid sent to him will be handled with care. For catalog write

E. J. Manderscheid

ST. JOHN, KANSAS.

Auctioneers: Col. John S. Snyder, P. J. McCormick.

Lamer's Percheron Sale

SALINA, KANSAS

I will sell at Public Auction in my Sale Stables, at Salina, Kan., on Wednesday, December 20, sixty (60) head of imported and Home-grown Percheron and French Draft Mares and Stallions, consisting of

32 Mares, 2 to 5 years old; 3 Mares "yearlings;" 11 Mare foals; 3 Horse Colts; 6 Stallions, 2 years old; 4 Stallions, "Yearlings;" 1 Belgian Mare.

The above stock is large and growthy, with as much weight, bone, style, action and conformation as you could ask for.

If you are in the market for a first-class Stallion or Mare—the kind to start the foundation for a family of horses and you will always like—don't miss this sale. Each and every one of this consignment was carefully selected by me, and I can assure you that you will not be disappointed after seeing this stock.

SALE DECEMBER, 20th WRITE FOR CATALOGUE

C. W. LAMER, Salina, Kansas

P. S.—On Thursday, December 21, I will sell 200 head of horses, consisting of work horses, mares and southerners.



J. C. Robison TOWANDA, KANS.

175 STALLIONS, MARES
AND COLTS ALL AGES FOR SALE
COME AND SEE ME

L. R. WILEY'S STALLIONS



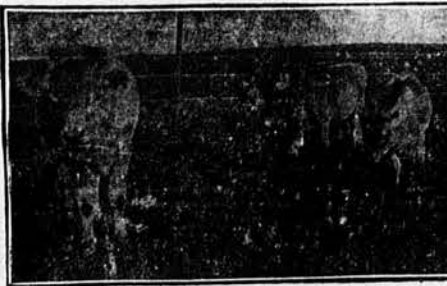
Imported and Home Bred Percherons, Belgians and Shires. All Percherons are Registered in the Percheron Society of America.

50—Head STALLIONS AND MARES—50

Including an unusual variety from which to select. All we ask is a chance to show the goods. You'll say the price is right, and buy. Write today.

L. R. WILEY, EMPORIA, KAN.

Breeding Farm, Elmdale, Kan. Sale Barns, Emporia, Kan.



SAY!

Do you know that fortunes are being made in Registered Jerseys? A bull raised in Missouri sold not long ago for \$10,000. Let me sell you a bull calf from my pure-bred prize winners to build up your herd. I have them from \$50 up. References: Joplin National Bank or any business man in Joplin.
DR. D. R. HILL, Joplin, Mo.

50—PERCHERON STALLIONS AND MARES—50

Bishop Brothers have 25 big boned stallions that weight 1,700 to 2,100 pounds that they can and will sell for less money than any firm in the business, quality considered. Write us what you want.
BISHOP BROS., TOWANDA, KAN.

Registered Percheron HORSE SALE

AT

Moran, Kansas

TUES. DEC. 12, 1911

Nine Stallions and six Mares; five Percheron Stallions, one 6 years old weighing 1750; one four years old weighing 1700; one 3 years old weighing 1600; two yearlings weighing 1400; one French Draft Stallion weighing 1750, 7 years old; one French Draft 10 years old weighing 1800; four Percheron Mares, safe in foal to the Imported Percheron Stallion, Reistant No. 35227 (65578), a ton Stallion and a good one; one pair Percheron Mares 5 years old, weight 1700; one 9 year old brown Percheron Mare weighing 1700; one 11 year old gray Percheron Mare 1700. I also will sell one imported French Coach Stallion, 10 years old, with good style and action, and one high-grade black Morgan Stallion, 6 years old; one black Jack, 15 hands high; with heavy bone and a good breeder. I will not issue a catalog, but will furnish all pedigrees on date of sale. Remember, sale will be held at my farm near Moran, Kan.



L. W. Sloan, Owner, Moran, Kas.

Auctioneers—Col. R. L. Harriman, Col. H. D. Smock.



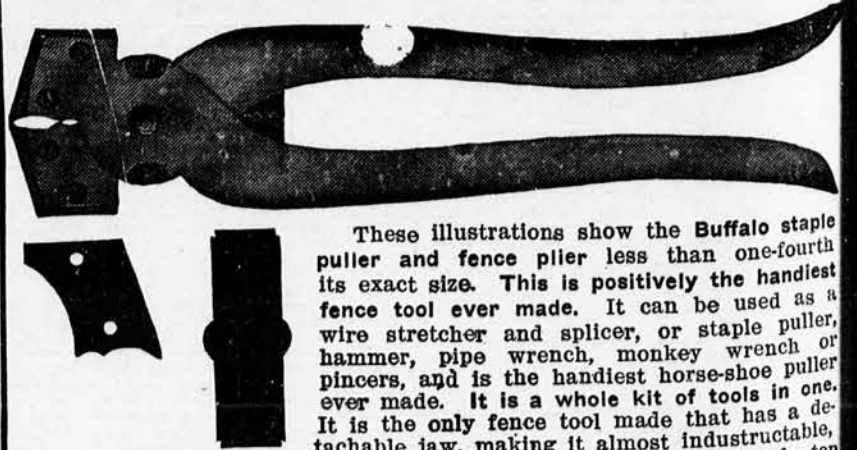
40 STALLIONS AND MARES.

My barn is full of good Percheron, Belgian and Shire Stallions. Priced to sell. I mean business. Come and look them over. If you want good horses, we can deal. My prices are from \$400 to \$1,000. Come and see me before you buy. Then be your own judge. Barn right in town.

Joseph M. Nolan, Paola, Kan.

Mention Kansas Farmer When You Write

Another All Purpose Tool



These illustrations show the Buffalo staple puller and fence pier less than one-fourth its exact size. This is positively the handiest fence tool ever made. It can be used as a wire stretcher and splicer, or staple puller, hammer, pipe wrench, monkey wrench or piners, and is the handiest horse-shoe puller ever made. It is a whole kit of tools in one. It is the only fence tool made that has a detachable jaw, making it almost indestructible, for if one of the jaws is broken, another can be secured for only ten cents. We positively guarantee this tool in every respect. It will be sent free to any one sending \$1.50 for a two years' subscription to KANSAS FARMER—new or renewal, or to any one sending us one new yearly subscription to KANSAS FARMER at \$1.00. Address all orders SUBSCRIPTION DEPARTMENT KANSAS FARMER, Topeka, Kan.

TEN WEEKS FOR TEN CENTS.
KANSAS FARMER will be sent on trial to any address 10 weeks for 10 cents. Could you do a friend or neighbor a better turn than to take advantage of his offer? Why not pick out five of your friends and send each of them KANSAS FARMER for 10 weeks?
To any lady reader of KANSAS FARMER who sends us 50 cents and five trial subscriptions, we will send

free of charge a KANSAS FARMER Cook Book. This is the best book ever published, none excepted, you don't say so when you get it, will send your money back.
To any gentleman reader send us 50 cents for five trial subscriptions we will send free of charge a fountain pen.
KANSAS FARMER, Topeka, Kansas.
Address Subscription Department

Testimonials From Users of Wilbur's Stock Food.
 Wilbur Stock Food Co., Milwaukee, Wis. Gentlemen—The Stock Tonic that you sent me several weeks ago works to perfection, as my stock is in much better condition with less grain than when I commenced to feed it. Yours respectfully, Frank Rand, South Royalton, Vt.

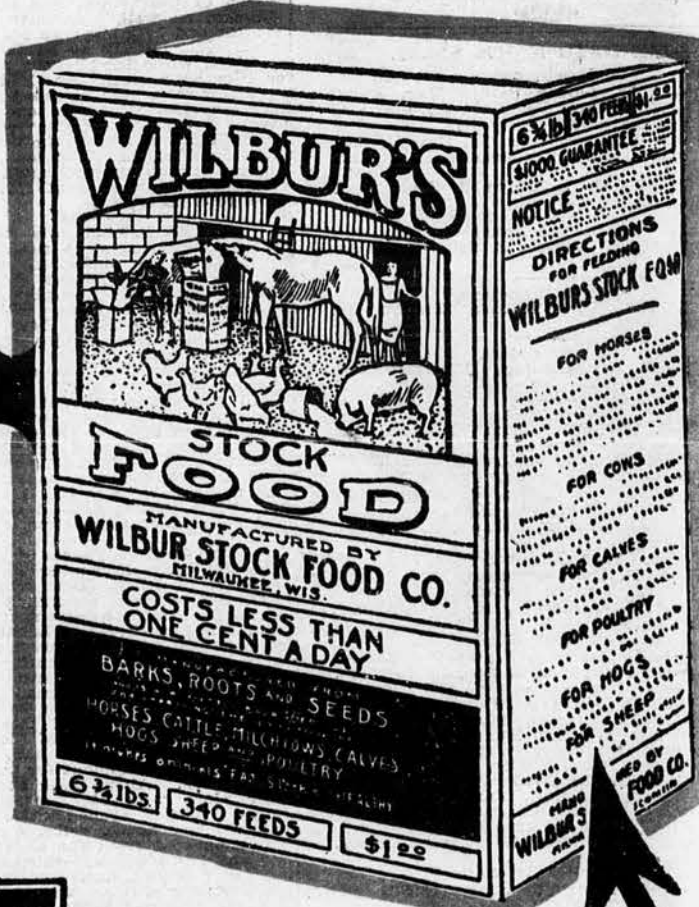
Wilbur Stock Food Co., Milwaukee, Wis. Gentlemen—Enclosed find draft for \$13 in payment for Stock Tonic. I have used two pails of your Stock Tonic; it is certainly fine. I have used almost everything on the market, but nothing to compare with the Wilbur Stock Tonic. My milk cows, calves, hogs and colts, after feeding three days, I noticed the change. It has saved me many

a sack of grain. My horses are sleek and nice, also are working hard every day. Will enclose watch certificate, and thanking you for past favors, I am, Yours very truly. (Signed) Casper Schwab, Kremmling, Colo. Wilbur Stock Food Co., Milwaukee, Wis. To Whom It May Concern: I have used Wilbur Stock Tonic and can say I will use it as long as I have any stock, whatever

kind it may be, to feed. Feed your chickens, and you get more eggs; feed your horse, and he will do more work; feed your cow, and she will give more milk; feed your hog, and he will give more pounds of pork; and, to make a long story short, you can't afford to be without it. So please hurry my five pail order to me. Sincerely yours, James J. Wagner, Williamsburg, Ohio.

FREE

This Big \$1.00 Box OF WILBUR'S STOCK FOOD



Simply clip out the coupon and mail to me at once. Not one cent to pay—not one thing to do.

I want to give you this big 6 3/4 lb. box of my Stock Food absolutely FREE. I want you to feed it to your horses, your cattle, your hogs, your sheep and your poultry. I want you to know for yourself why Wilbur's Stock Food is fed by over 500,000 farmers and stockmen. Why it saves feed—prevents disease and doubles your profits.

Send Me No Money—Not Even a Stamp—This Big Box of Stock Food Costs You Nothing

Not one cent now or at any other time do I want for this big \$1.00 box. Contains 340 feeds—enough for a good practical feeding test. I know that every stock-raiser who tries this free \$1.00 box will continue to use my Food. That's why I can afford this great free offer—that's why I am ready to send one million free boxes to one million American farmers.

Is it worth a two-cent stamp to write for my big free \$1.00 box? Do you want to double your profits and save your live stock? If so, clip out the coupon and mail today.

Wilbur's Stock Food builds up run down horses—cleans the blood, softens the stomach. Revitalizes the entire system and positively prevents all disease.

My food doubles the milk and butter when fed to milch cows, fattens hogs and beef cattle for market in 40 days less time. Prevents scours when fed to sheep.

As a poultry raiser and egg maker it has no equal—makes strong, healthy chicks, doubles the egg supply, and absolutely prevents Pip, Roup, Gapes, Bowel Trouble and all Poultry Disease.

\$1,000.00 IN GOLD

Given Away in Cash Prizes

We will give away 127 Cash Prizes from \$1.00 to \$500.00 each to users of Wilbur's Stock Food this season. YOU may win the big \$500.00 First Prize. We will send you full details of this Great Prize Offer if you send the coupon for the Free Box of Stock Food or write us at once.

Fill out and mail the coupon today.

E. B. Marshall
 President

WILBUR STOCK FOOD CO.
 340 Huron Street,
 Milwaukee, Wis.

OUR CASH GUARANTEE

We will pay \$1000.00 cash to any person who proves this offer of a FREE \$1.00 box is not exactly as advertised.

\$1.00 FREE BOX COUPON

E. B. MARSHALL, Pres.,
 Wilbur Stock Food Co.,
 340 Huron St., Milwaukee, Wis.

Please send me the FREE \$1.00 box of Wilbur's Stock Food; also full particulars of free cash prizes.

I own _____ horses _____ cattle _____ hogs _____ poultry.

My Name _____

P. O. _____ R. F. D. _____

Freight Sta. _____ State _____

65