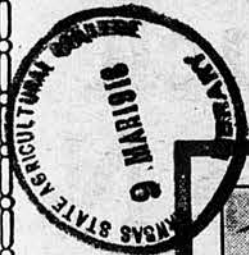


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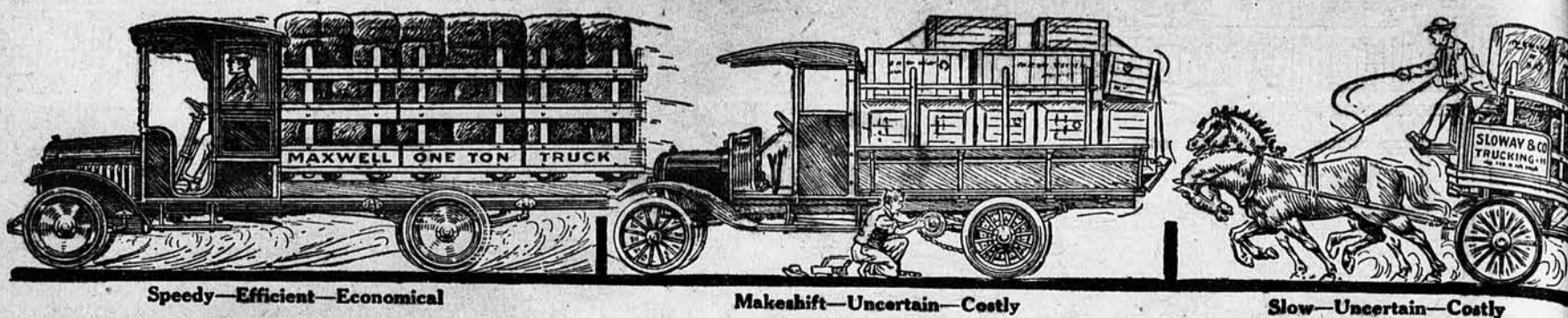
The FARMERS MAIL AND BREEZE

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THE FARMERS MAIL AND BREEZE

An Agricultural and Family Journal for the People of the Great West



Volume 48
Number 10

TOPEKA, KANSAS, MARCH 9, 1918

Subscription
\$1.00 a Year

Machinery Aids in Increasing Yields

Kansas Farming is Coming to Depend More and More on Efficient Implements Which Have Been Designed With Care

By F. B. Nichols, Associate Editor

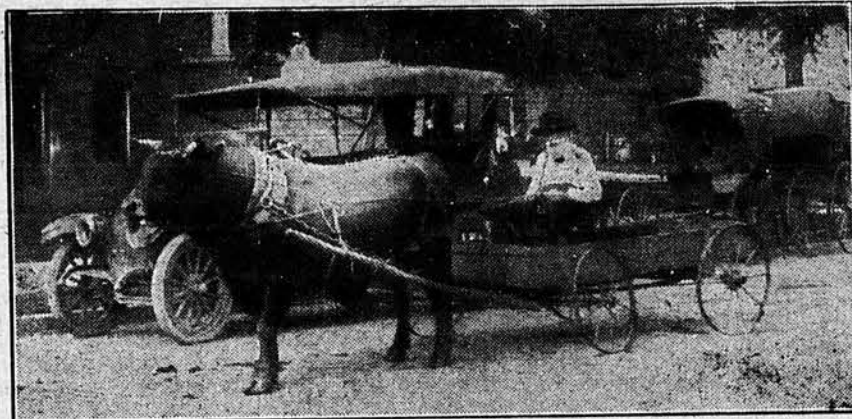
FARM MACHINERY is going to work some mighty fast changes in Kansas agriculture this year and in the next few seasons. This was the big lesson, as I take it, at the Kansas City and Wichita tractor shows, and from the talk one can hear every time he is with a group of farmers. Production must be placed on a new basis, and machinery will take a large place in this.

Probably the most encouraging thing in farming has been the great increase in efficiency with all classes of machines in the last few years. If this were not true agriculture would be in a "dickens of a fix" today. And it is about time that we should realize the high value of machinery in making a greater production, based on the man unit of measurement, possible. In 1830 it took on an average 3 hours of a man's labor to produce a bushel of wheat; now it is said that it requires less than 10 minutes. Tractors are reducing this time every year.

High Prices for Food.

And it certainly is important that this time required for production should be reduced. "There is some evidence," said Hugh McVey, advertising counselor of The Capper Publications, in an address before the farmers who attended the tractor show at Wichita, "in the present high price of foodstuffs that we are facing another period of starvation such as this nation had in the days of hand tools during which the American farmer was not able to produce much more food than enough to feed his own family. The possibility is remote but not entirely impossible, for there has been but a small increase in the world's foodstuff production in recent years, attended by a heavy and steady increase in population and an increase in the quantity of food eaten by every individual throughout the world. The prices of foods have had a steady, average increase since the over-production period ended in 1897. The European war is a contributing factor to the present high prices but is not entirely responsible for them. With the coming of peace and a resumption of an increase in the world's population—if it really has stopped during the war—we can expect the high prices of foodstuffs to continue.

"Every person in the United States consumes, on an average, between 5 and 6 bushels of wheat a year, and a family consumes an average of a half ton of meat a year. Under the new systems of farming fewer persons are needed on the farms to produce a living for the world than formerly and more persons are engaged in non-productive occupations and live in town. For example, a century ago more than nine-tenths of the people of the United States lived on farms and were directly dependent on agriculture for a living. In 1910 about one-third of the people were engaged in agricultural occupations. Formerly a farm supported a family and produced a small surplus to supply the needs of the few persons who lived in town. Today the farms are required to meet domestic and export needs. The domestic needs alone require every farm to support



Two Ways of Transportation; Machinery Is Developing in Efficiency Every Year, and It Pays for One to Keep Informed of This.

three families—the one that lives on the farm and tills its fields and two that are living in town. And soon every farm will be asked to support four families."

In other words, the labor shortage is a permanent feature of American agriculture. It will of course be especially acute in the next year or two or three, during the great world war, but it also will be great for many years after it closes. More and more the dependence must be placed on machinery. Steel and iron and wood instead of human muscles must carry the load.

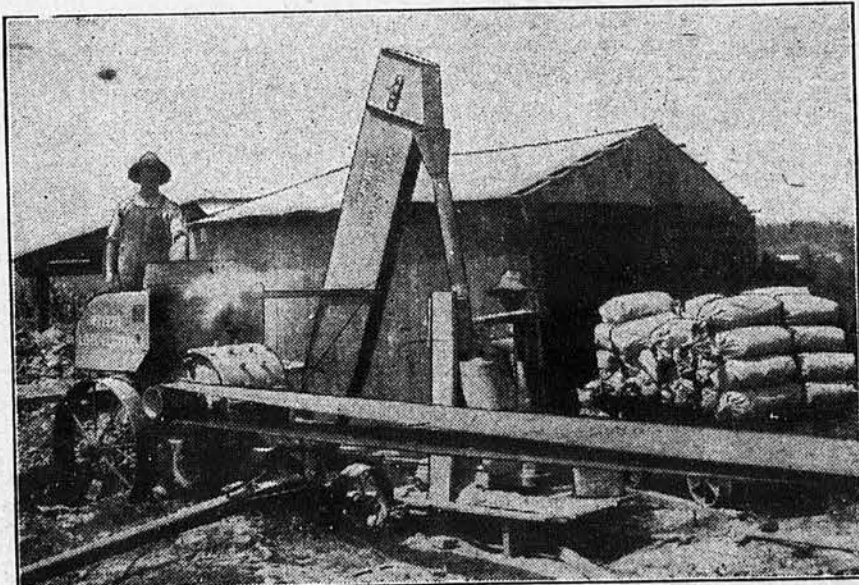
It will be better thus. This condition will be helpful for all concerned; the intelligent farmer who is alive to the fundamentals of production will profit most of all. It places farming more and more in the skilled professions, and skill is always well paid for. Naturally it is only the man who is alive to the changes which are going on around him who will profit most from this condition.

What should a man do to keep alive to the situation? There are two main fundamentals I believe. The first is

to keep informed fully of the progress that is being made in improving farm machinery. You can get this information from a study of the advertising columns of the Farmers Mail and Breeze, from a careful study of machinery catalogs and from trips to the good machinery shows, such as those at Wichita and Kansas City. Many of the smaller shows and demonstrations are mighty valuable. You also can get help, as a rule, from the hardware man in your town, in that you can study his stock and much of the printed matter he receives.

A general view of the improvements in the machinery situation places you in a position so you can form a better judgment as to just what is needed in improving production under your conditions. And it is very helpful to have this information. There is a huge variation in the efficiency of ordinary grab hay forks, for example, which everyone who has used one of the old "back breakers" can testify to his sorrow. This is true with practically all lines.

The second important thing is to get



A Portable Pulver Will Produce Ground Limestone for Acid Land Cheaply and Effectively, and Make Larger Crops Possible.

a better idea of the actual results which farmers are getting with machinery under our conditions. There is enough available farm mechanical knowledge in every county in Kansas, if it were all assembled, to completely change our methods. This rich fund of experience has been neglected. Many county agents are doing considerable good in making it available. It will pay mighty well to find out what your neighbors are doing in using machinery more generally—Bill Jones, for example, may be a "nut" on some things of a mechanical nature, but if he has a lot better results in cultivating corn or kafir it will pay to find out how he does it.

It will be very interesting to see how some of the farm machinery movements of today "turn out." For example, take the increase in the number of small separators, purchased to do the threshing on just a few farms. Several hundred of these little outfits were purchased last year in the Middle West, and it is probable that the number will be very large this year. They were featured in the exhibits at the Wichita show, and they got the interest of the crowds.

A Small Separator.

"A small threshing machine for most farmers is likely to become a rude just as fast as the farmers buy tractors," Mr. McVey said in his address. "Many of the tractor distributors are selling a small separator in connection with their tractors. They find them an aid in helping to sell the tractors for they multiply the uses of farm power with every individual farmer. More small threshers would have been sold heretofore had the farmers had the power to run them. With the tractor this power is supplied. Unfavorable weather for threshing comes with most seasons, and when a farmer must delay threshing after the grain is ready, loss is almost sure to occur, unless one is at the front end of the big threshing man's schedule. And then unfortunately after the machine does come the man in charge sometimes operates with the idea of getting the greatest amount of straw thru the machine in a day and with little regard for the grain that goes into the straw pile. When the farmer owns his own complete threshing outfit this is under his own control. He can thresh his grain any time and carefully."

There is a fine opportunity in the extension in the use of irrigation on a small scale by the use of the tractor and a centrifugal pump. The extra equipment needed for pumping water out of the streams in Eastern Kansas after one owns the tractor is not great. One-half of Japan's farming land is irrigated, altho rainfall there is greater than in any part of our grain belt. A single acre there is made to produce, by two and three crops, \$160 worth of products a year. Of course, the farmers there fertilize, but that is not impossible with us. It seems visionary to speak of irrigation for our great fields of the grain belt, yet no more so than cutting 25 acres a day or plowing 10 or 12 would have seemed to the farmer of the '40's. Small

(Continued on Page 37)

DEPARTMENT EDITORS

Field Editor.....F. B. Nichols
Farm Doings.....Harley Hatch
Poultry.....G. D. McCluskey

Entered as second-class matter Feb. 16, 1906, at the postoffice at Topeka, Kansas, under act of Congress of March 3, 1879.

ADVERTISING RATE

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The Farmers Mail and Breeze

Member Agricultural Publishers' Association.
Member Audit Bureau of Circulation.

Published Weekly at Eighth and Jackson Streets, Topeka, Kansas.

ARTHUR CAPPER, Publisher.

CHARLES DILLON, Managing Editor.

T. A. McNEAL, Editor.

F. B. NICHOLS, Associate Editor.

SUBSCRIPTION RATES, - - - -

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Three Years, Three Dollars

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Passing Comment—By T. A. McNeal

Farmers are Loyal

There is really little or no occasion for saying that the farmers are loyal. It ought to be taken for granted that they are, but somehow the impression has gone out in some parts of the country that the farmers are slackers and indifferent concerning whether the war is prosecuted vigorously. I have addressed a good many meetings during last fall and this winter and I have taken pains to find out what the sentiment really is among the farmers. I have discovered that they are as enthusiastically loyal as the people of any other class in the United States.

I do find, however, that they feel that they have some cause for grievance. They are not objecting much to the government regulation of the price of wheat, but they do feel that the regulation should have gone clear along the line. The price of corn, flour and mill feeds should have been as effectually regulated as the price of wheat. The price of corn should have been kept down so it would be profitable to feed it to 15-cent hogs.

They cannot understand, and neither can I, why there should be such an enormous difference between the price of hides and the price of leather and shoes.

They have discovered that there is a joker in the regulation of the price of feed stuffs. There seems to be no relation between the price of wheat and the price of bran and shorts and the farmers naturally would like to know why. Furthermore, they have the best right in the world to know why.

But so far as being loyal is concerned I have heard but one sentiment among the farmers and that is a determination to support the government heartily.

Bad for Democracy

The utter fall-down of the leaders in Russia is tremendously unfortunate in more ways than one.

Of course it was bad for the allies to have Russia quit right in the middle of the game and give Germany advantage and greatly prolong the war, but to my mind the most unfortunate thing about the Bolshevik failure is the effect it will have on democracy. Here is a practical demonstration of radicalism which has paralyzed industry in Russia and left it a helpless prey to the German invader. One of the hopes the world has indulged in, myself among the rest, has been that the Russian revolution would cause discontent among the German masses and finally cause them to overthrow their autocratic government. But now the German troops are marching thru a country utterly disorganized by supposed democratic rule. They find industries destroyed, the railroad service the worst in the world—bar none—the people starving amid plenty and a government as tyrannical and autocratic as it has the power and ability to be.

I very much fear that instead of stimulating the German soldier to a desire for democracy in place of autocracy he will say that if this is democratic rule he wants none of it and will go back more loyal to the kaiser and militarism than he ever was before.

All this plays into the hands of the German government.

It will give the German kaiser an excuse to do what he and his military advisers have wished to do from the very beginning—Germanize Russia. The high-handed tyrannical conduct of Lenin and Trotzky, leaders of the Bolsheviks, has been the worst blow to democracy that has been dealt since the war began. If Germany is permitted to get absolute control of Russia and hold it, she will have gained a good part of what she set out to accomplish. On the ruins of the overturned government of the czar she will build a German autocracy. Unfortunately the coming of German rule will not be unwelcome to the upper or middle classes in Russia. The people of those classes will prefer German order to Bolshevik disorder and tyranny.

I had hoped that it would be different. I had banked a good deal on the establishment of an advanced republic in Russia. So far the experiment has failed. Left to themselves or with the friendly aid of enlightened democratic governments like the United States, the Russians would finally have

worked out a real republic, but the Bolshevik government has not sought any aid or advice from the United States. We are not in a position to help much even if the Russians were willing. Germany is on the ground. It seems as if it would get complete control before the allies can do anything to stop it.

There is a real danger that Germany will win thru Russia.

Exposed Germany's Purpose

Along with the great possibility of evil resulting from the Russian collapse and the German invasion, there is this much good to come. It has disclosed the purpose of the German government. If there was ever a doubt in the mind of anybody that the purpose of Germany has been conquest from the very beginning, there is or ought to be no doubt now.

If there still lingered in the mind of any citizen of this country a belief that the men controlling the German government—and there is a growing belief that the kaiser after all is not the real guiding spirit of German militarism, but the willing instrument of the system—were really honest in the statement that Germany has been fighting a defensive war, that opinion must be shattered now.

Everybody understands now that Germany intends to keep whatever she has so far obtained, if she can. There is no longer any question of the purpose of the German government to completely dominate Russia and also France, Belgium and Italy, if it can. In only one way can it be dissuaded from that purpose and that is by a great defeat at the hands of the allies or by an uprising among the people of Germany strong enough to overthrow the government. There is not much hope for that unless the unrest spreads to the army. That there is unrest and wide-spread discontent in Germany there is little doubt, but unless that discontent spreads to the army it will not overthrow the government.

The complete subjection of Russia by Germany is serious. It means that within a few months Germany will begin to get food which the German people need badly, and the hope that hunger will compel Germany to make peace will have to be abandoned.

But in the end it will do Germany little good. The sinister purpose of the German military power has been so completely exposed that it seems to have stirred up an opposition to Germany where it was least expected. Morris Hilquit, who denounced the war and openly condemned this government, is now making patriotic speeches and offering his services to the government to help in the fight against German militarism. The labor organizations of England which were for a time decidedly lukewarm are now determinedly for the prosecution of the war to a successful end.

Bernhardi declared in his "Germany and the Next War" that it was world power or downfall for the German empire.

The world outside of the central powers understands that such a thing as permanent peace, is impossible so long as the German military power is unconquered. That may make the fight longer than many of us have anticipated, altho I am of the opinion that when the German military power begins to break that it will crumble fast, but in any event, much as peace is to be desired, it is better to fight another year and overthrow the German government than to stop short of that even at the saving of a year of war.

That Cannon and Engine

L. C. Knudson of Waterville takes issue with my mathematics.

He says: "Your answer to the mathematical question in a recent issue is quite absurd in its final conclusion. Had it been limited, however, to the first statement, 'The force which carried the ball from the gun on the engine was entirely independent of the force which moved the engine itself,' it would have been sufficiently correct and explained the apparent puzzle itself. The problem belongs to the physical science of motion, of course, under which the elements and laws involved are explained fully. In this case it isn't a simple

matter of addition and subtraction of forces according to the direction in which the cannon is supposedly shot.

"Obviously the ball and cannon already possess the velocity of their base, a moving locomotive with a speed of 100 miles an hour. Fired straight ahead the projectile receives an additional impetus from the charge of powder of 100 miles or double the speed of the cannon and the carrying engine, thus out-traveling them at the rate of 2 to 1. Traveling in the opposite direction the force of the ball would exactly overcome the speed of the cannon on the engine and they would part at the rate of 100 miles an hour. In every thinkable instance or condition the discharge of the ball from the cannon would certainly occur as an independent action, adding new force and thus speed to that already possessed by it. The other problem about the cannon in the mortar is substantially the same but as interpreted in the answer fails of it. By adding the two explosive forces the speed of the ball is obtained as twice that of the cannon, self-evidently.

"In the first problem by assuming the speed of the cannon ball at the rate given the problem becomes practically absurd. The value of this kind of mental exercise lies in the inquiry it may lead to about physical laws in daily operation but mostly unknown and misunderstood."

Mr. Knudson may be right. There is, of course, only one way in which his theory can be actually proved and mine actually exploded and that is by getting an engine that will run 100 miles an hour and a cannon that will shoot at the remarkably deliberate rate, for a cannon, of 100 miles an hour, plant the cannon on the engine, get an engineer who is willing to devote his life for a few minutes to the demonstration of physical science and then turn the engine loose and fire the gun. It would be just like the government to refuse to let us have an engine for this scientific test and even if we can get the engine we are going to have a lot of trouble in getting that kind of a cannon. So there we are. It seems to me as if this absorbing problem is going to go unsolved, perhaps to worry the minds of generations yet unborn, along with those other vexing questions concerning the identity of the individual who pasted William Patterson on the mug and that other problem which as I now recall is like this: "Suppose that an irresistible force should encounter an immovable object; what would be the result?"

However, in this case I will frankly own that Mr. Knudson has the advantage. He is certain that he is right while I am not certain that I am right. I will therefore withdraw from this controversy until somebody actually supplies the cannon and the engine and the engineer to run it.

The School and the Farm

One evening recently I attended the dedication of the Bloom rural high school building. Possibly you never heard of the Bloom and really it hasn't bloomed to a great extent as yet. The report of the state board of agriculture does not mention it as a separate organization. It is simply, so far as that report is concerned, a part of the township of Bloom down in the southern part of Ford county. The entire township has a population of 425 persons, and I am guessing that maybe 125 of the 425 live in the little village of Bloom.

Last year was a hard season out in that part of the state. The land is fine but there was almost no rain last year and crops of all kinds were a failure.

It takes some considerable pluck to undertake the building of a rural high school under such conditions, but then pluck is a common characteristic of the Western Kansas people.

This is the first rural high school in Ford county. The district connected with the school takes some territory in Clark as well as Ford. The people of the rural high school district cheerfully voted \$15,000 bonds on themselves and then dug up some \$2,000 additional to build and equip the building, which is modern, handsome and comfortable.

On the evening of the dedication the people of the district filled the high school auditorium despite the fact that it was bitterly cold and the

wind was blowing as it can blow out in Western Kansas.

However, this is what interests me. The people out there are trying to correlate the school with the everyday life of the people. They took enthusiastically to the suggestion that there should be an experimental farm run in connection with the rural high school and I think that will be the next move. They are intelligent and progressive people but they say, and truthfully, that an experiment made at the agricultural college at Manhattan does not necessarily prove anything so far as that part of the state is concerned, on account of the difference in climatic conditions. They can easily see, however, that an experimental farm in connection with the high school might be of tremendous advantage to the farmers out there. On this farm could be tried out all sorts of agricultural experiments. Some of these would fail, but the failure might be of as much benefit to the people out there as a success. There are a few facts in regard to Western Kansas which are pretty well established. One is that the methods of farming which are successful in a wet country will not work successfully in an arid, windy country. Another fact is that the successful farmer in Western Kansas must be prepared to change his methods to suit the different seasons in that country.

Summed up, the great problem of Western Kansas is for the farmer to adapt himself to the climatic and soil conditions of that part of the state. He must find out what crops show the most resistance to drought and winds. With an experimental high school farm these tests can be made without imposing any great risk on any one individual.

I discovered also that the people out there are rather enthusiastic over the idea of making the school not only a social center, but also a school for people of all ages. Why not continue to go to school after we are grown ups?

I am going to watch that Bloom rural high school with interest.

The people out there have evidently made up their minds to stay there and make the best of the country. If they ever had the notion in their heads that there is a change going on in the climate, they have gotten rid of it now. The climate of Western Kansas and Western Oklahoma and Eastern Colorado has not changed. It will not change in all probability. There will be comparatively wet years and extremely dry years just as there always have been. On the whole the climate will continue to be semi-arid and part of the time arid without any semi.

To discover and develop crops which will grow even under the most unfavorable drought and wind conditions is the business of the experimenter. The government is ready to help out under its terms, which provide that the general government shall pay a third of the salary of a practical farm demonstrator and instructor, provided the state pays another third and the local district the other third.

German Cruelty

A reader at Marysville, signing himself J. V., asks: "Can it be proved that the German soldiers killed women and children thru wanton cruelty? If so, when and where? What relation is the lady to the late Queen Victoria of England? Has Germany had any war since 1870; if so, with what country?"

The German atrocities not only can be proved but they have been proved so overwhelmingly that the only individual who still doubts that these atrocities have been committed is one who is so ignorant that his case is nearly hopeless, or else he is a German sympathizer who refuses to be convinced by any evidence.

In order to prove German atrocities it is not even necessary to take the testimony of witnesses from Germany. The published defense of the German government of the acts of its soldiers in Belgium and France is sufficiently damning without taking any other testimony. In that published defense the German government acknowledges that men, women and children were shot down by German soldiers and justifies this by asserting that the troops had been fired on by citizens.

Now let us draw a possible parallel. Let us assume that Germany occupied the territory now comprising Missouri, and that Kansas was an independent government called Belgium, while the territory now occupied by Colorado was also an independent government called France. Then let us suppose that war had been declared between Germany and France, Kansas or Belgium, lying between the two, had no quarrel with either, but its neutrality was supposed to be protected by treaties signed by both.

The government of Germany, wishing to attack France, asks the government of Kansas, or Belgium, for permission to march its troops thru Kansas, so it may strike Colorado, or France, unprepared.

The government of Kansas, or Belgium, replies that it cannot consent to that because it would be a violation of its treaty obligation. The government of Germany replies that it knows that but that this is a war necessity and that after the war is over it will recompense Kansas, or Belgium, for the wrong done.

To this the government of Kansas replies that

it cannot consent to take money for a violation of a sacred obligation and that if Germany insists on invading its territory it will resist to the extent of its power. Suppose then that Germany, disregarding its own treaty obligations, would proceed to send its armies into Kansas territory and Kansas should muster what force it could to protect itself. Its army would be beaten back by the overwhelming force of the German army. The course of this German army would rather naturally take it thru the town of Marysville where J. V. lives.

A proclamation would be issued saying that if J. V. or any other citizen or person who happened to be within the limits of Marysville should fire a shot at the German troops or commit any other hostile act a certain part of the inhabitants, say one-third, would be shot and the town of Marysville destroyed. It is quite likely that some hot-headed resident of Marysville, burning with indignation at the wanton invasion of his country, would decide to try to kill at least one of the invaders, and acting on that impulse would fire a shot from some upper window. Then let us suppose that J. V. and his wife and children, along with one-third of the residents of Marysville who had nothing whatever to do with the firing of the shot, would be taken out and deliberately shot by the German soldiers. That would be a counterpart of what the German government not only acknowledges was done, but justifies as a military necessity. With that acknowledgment from the German government does J. V. need any further proof?

But the testimony outside of this is utterly horrifying in its abundance and completeness. I have waded thru page after page of it until my brain fairly reeled with horror. This proof consists of photographs taken, of letters captured with German prisoners and of diaries of German soldiers taken from the bodies of the dead Huns on the battlefield.

When the German government was confronted with this horrible proof it proceeded to deny a part and defend the rest. It refused to agree that a commission selected from neutral nations should be appointed to make an unprejudiced investigation but instead made an investigation or an alleged investigation itself. Of course that investigation was made as partial to Germany as possible, but even with its own prejudiced witnesses it succeeded in proving most of the charges made by its enemies. I now recall one bit of testimony in the German report. A German soldier was attempting to show that the stories of indiscriminate slaughter of women and children were untrue. He stated that in hunting thru a pile of dead Belgians who had been shot because some person in the town had fired on the German troops, he only found one dead child. He does, however, relate with apparent satisfaction that he found in the heap one living child and tells how he had that child cared for.

In answer to J. V.'s second question I supposed that every fairly well read person knew that William II is the grandson of the late Queen Victoria.

The third question of J. V.'s is the one which leads me to suspect that his heart is not right. Before the United States got into this war it was most common for German sympathizers to call attention to the fact that Germany had had no war since 1870, while nearly all the allied nations had been involved in one or more wars. It is true that Germany had had no war with any great nation since 1870, but it has done a great deal of fighting with half-savage people. In the conduct of its colonies it has been most ruthless and cruel.

However, what Germany has done or has not done in the 43 years between the close of the Franco-Prussian war and the beginning of this is not a matter of great importance. The important thing is what Germany has done in this war.

In this war it has made the Apache savage seem by comparison like a meek and gentle christian gentleman. It has descended below the lowest depths of savagery ever before recorded in history.

Will Blood Tell?

No doubt, Erastus, there is something in what you say about blood. Good stock counts in humans as well as among animals. You can't get pure-breds from scrubs either among horses or men, but the fact remains that education and environment have a great deal to do with the character and conduct of people. I know a neighborhood where for 20 years there has not been a crime committed by any member of the community. There has been no need for a policeman and there have been no drunks or misdoers.

I think the people of that community have maybe gotten the notion in their heads that they belong to a rather superior order of beings. Down in the bottoms somebody is making trouble most of the time and the policemen are kept busy.

Down in that neighborhood there is not a really comfortable home. The streets are smoky and dirty and the yards are full of rubbish and junk. Now it is my opinion that if the surroundings of that neighborhood were as sanitary and inviting as they are in the first neighborhood mentioned there would be an immediate falling off in crime and disorder. It is my opinion that if the people who live in the orderly neighborhood were put among surroundings like those in the bottoms and they and their descendants kept there for a few

generations that the said descendants would be raising hades and keeping the police busy.

It is said that in parts of Australia it is very impolite and bad form to ask anyone even in the best society where his ancestors came from. You see a good while ago England used that part of Australia as a convict colony. Criminals who were bothersome and maybe considered especially dangerous were deported to Australia and turned loose there because it was supposed that they never could get back to England to do any more harm. Well, these convicts were given a chance in that wild country to work out their own salvation and strange as it may seem, when the opportunity was given they began to prosper and became industrious, law-abiding citizens.

We are more the creatures of circumstance than we generally suppose. Also I might say, Erastus, that what is called success is just as likely to be the result of fool luck as of good judgment.

Waste of Energy

I am frequently asked if I think we are going to have government ownership of railroads in the very near future.

I do not know.

My opinion is that we will at least never go back to the old system with its waste of time and energy and senseless discriminations.

Not long ago my attention was called to a case where a car of flour was to be shipped from a point in Kansas to a point in Texas. While this Kansas point was many miles nearer the Texas point than Kansas City, the rate from Kansas City to the Texas point was less than from the Kansas point. Therefore the car was first hauled to Kansas City and then back thru the town from which it originally started on to the Texas point. The coal necessary to haul the car from the Kansas point to Kansas City and back again to the Kansas point was all wasted while the country generally was clamoring for coal. The wear and tear of the car and the track and the wages of the train crew, also were wasted, and this at a time when everybody is being urged to conserve wherever possible.

If a private individual would act with no more sense than the railroad company he would be called before the nearest probate judge and a jury would be summoned to inquire into his sanity.

What would be thought, for example, of a farmer who had a load of grain to haul to town, if instead of loading the grain in his wagon and starting by the nearest and best road to town, he would first drive a mile or two in the other direction and then drive back over the same road, past his own house on the way to town?

You know what would happen. The neighbors would say: "The war or something has unbalanced that man's mind. He may become dangerous. We had better have him looked after."

But in the case of the railroads tremendous salaries are paid men for managing such senseless systems.

Vast armies of clerks toil day after day making endless columns of figures on rate sheets.

Shipping clerks puzzle over hundreds of differential rates which are based on neither reason nor equity.

While produce is rotting in certain localities for lack of cars to load it into, and people in other localities are clamoring for the food and other necessities they cannot get, the motive power of every railroad in the country is being wasted in hauling empty cars.

Government ownership may not be a complete success, but it can hardly be worse than private ownership has proved to be. Politics will in all likelihood interfere with the efficiency of government ownership or government management, but at that it cannot be worse than the politics connected with private management, while some at least of the discriminations and absurdities and needless expenses of the present management will be avoided.

Public ownership of transportation is certain to come, but possibly it may not be immediate.

Let Politicians Beware

Party politics and partisan methods cannot win a war, they never have and never will. The President's announced purpose of calling both Democratic and Republican leaders of Congress into a series of war conferences is wise and statesman-like. The Republican brethren have proved themselves worthy of this confidence by their support of the President when even his own party has failed him.

A President when elected becomes the President of the United States, not of the Democratic party nor of the Republican party. After he takes the oath the people and the Nation have the first and only claim upon him. He is the people's President as this is the people's war. In the hearts of the people there is only one political party in the United States today and it is devoted heart and soul to conducting the war powerfully and forcefully and ending it in the shortest possible time and with the least bloodshed. Let any and every politician beware of getting in the way of this party policy.

Arthur Capper

Dead Pigs do Not Win Wars or Pay Bills

More Care Will Reduce the Losses Greatly and Thus Increase the Production of Some Much Needed Pork

By H. W. Doyle

Special Assistant Secretary Kansas State Board of Agriculture

OF 5,286 PIGS farrowed on 75 farms last spring only 3,610 lived to become hogs. This represented a loss of 31.71 per cent. Out of every hundred pigs 10 were born dead, 18 died between farrowing and weaning, and three died after weaning. This means, on the average, that of every litter of 10 pigs farrowed three died, and only seven were raised.

These were average pigs on average farms, and altho the figures were made in Minnesota there is reason to believe that a similar set of figures made in Kansas very likely would tell the same story. Too many pigs are lost; time and time again dead pigs spell the difference between profit and loss in the hog business. These farmers poured their money into sows, providing feed and housing and care, but because of poor animals, improper feeding, improper housing, or improper care, they suffered a loss of 10 per cent at farrowing.

And then by the same processes they suffered a second loss, more than double the first, in the death of pigs after farrowing. No doubt a certain percentage of loss will occur under the best of circumstances, but a loss so great as this is a loss amounting to a crime. In times of stress like these it is doubly a crime—a crime against the farmer himself, and a crime against the United States and her allies.

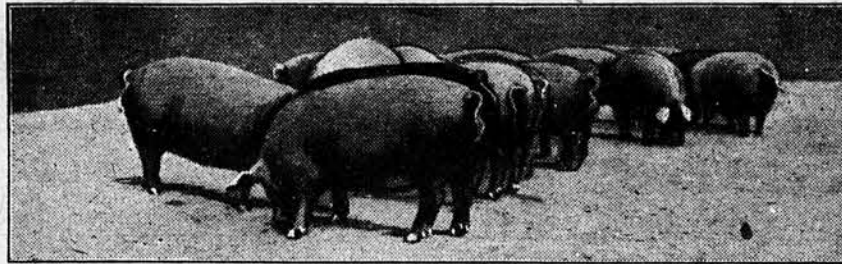
Let's Save the Pigs.

The government of the United States has asked the farmers of Kansas to increase pork production this year by 25 per cent. Has it ever occurred to you that a part, yes, a large part, of this increase might be brought about by cutting down preventable losses and wastes? Assume that the figures mentioned apply to the hog industry of Kansas, and that there is annually a loss of 31.71 per cent of pigs farrowed. If that loss were reduced by a little more than three-fourths we would have attained an increase in production of the required 25 per cent. Of course we are not likely to succeed in reducing our losses in any such wholesale manner as this, but we can reduce them, very materially. A pig saved, that otherwise would die, is a pig gained.

The time to begin cutting down pig losses is before breeding—in the selection and conditioning of dam and sire. We can't, of course, correct any mistakes made in breeding for this year's spring pigs, but we can see to it that the same mistakes are not made in breeding for fall litters, and for all litters that follow. This is no place to go into the subject of what makes up a good sow or a good boar; we shall assume that most hog-raisers have pretty definite ideas about that anyway. Rather, we wish to emphasize the point that a scrub sow is a mighty poor pig machine to be pouring sky-high feed into, and to be lavishing precious labor and housing upon. If a man has any of that kind of stock around the sooner he gets rid of it and buys something worth while the better it is going to be for him and for everybody concerned. We do not mean by this that he should necessarily buy extra-good purebred stuff, altho that is a fine thing to do if you can afford it, but that he should at least buy grade stock of quality and merit.

Care in Breeding.

Having animals of the right type and quality we should see that they are in proper breeding condition. There is no profit in breeding either over-fat or run-down sows, and no profit in mating with out-of-condition boars. There need be no worry about over-fat sows this year; these are scarce articles. The run-down sow, however, is another matter. High prices of feedstuffs have fostered a strong tendency to underfeed, and this is a tendency we have got to guard against if we desire maximum litters of strong, healthy pigs. With alfalfa or clover and a very little grain run-down sows may readily be brought into proper breeding condition. Money spent this way will pay real dividends.



A Well Balanced Ration and Good Care With Properly Bred Sows Will Result in Producing Pigs Which Have Real Quality.

The feeding of a litter of pigs begins with the pregnancy of the sow. They must be fed in the four months before farrowing just as truly as they must be fed after they are born. And, like all growing pigs, the larger they get the more feed they require. Therefore, when you go out to feed a sow in pig, give her enough to supply her own wants, plus enough to supply the wants of her unborn young. The same holds true in regard to the kind: Give the kinds of feed you should give to an open sow as well as the kinds of feed you would give to growing pigs. The pregnant sow needs mostly protein feeds—alfalfa, clover, milk, shorts, tankage, oilmeal—in sufficient quantities to develop pigs with kinks in their tails.

Nowhere are hog raisers more fortunately situated, as regards the feeding of the pregnant sow, than in Kansas. The Sunflower state is 'naturally adapted to the most wonderful pregnant-sow feed known—alfalfa. Think of it! A permanent, contiguous, long-seasoned, highly protein pasture plant! A plant so rich and nutritious that its hay is equivalent to that concentrated mill product, bran! Think of the very expensive protein concentrates it takes the place of!

A pregnant sow needs exercise; without it she cannot retain health and vigor and transmit that health and vigor to her pigs. From the time alfalfa is 10 inches high in the spring, clear up until fall, she can run on alfalfa pasture and secure that much-needed exercise. In the winter season she can run on winter wheat or rye pasture, with alfalfa in a nearby rack, and a little corn, kafir, or ground oats, on the side. Only when the snow and ice prevent pasturing must her owner take extra precautions for her exercise. Then he must put her feed and water at a distance from the sleeping quarters to make sure that she moves about.

The condition of the bowels is an extremely important matter. If the sow has alfalfa there need be little trouble from constipation. If she hasn't alfalfa she must be fed bran, and the grain ration should be given in the form of

slop. As the gestation period draws to a close oilmeal should be introduced into the ration, both for its protein and for its laxative effect on the bowels. Fattening feeds, particularly corn, must be fed in very limited quantities, not only because the amount needed is small, but also because of its tendency to constipate. Constipation and feverishness, due to excessive use of fattening feeds, and to lack of exercise, cause more pigs to be born dead than we ever realize.

Two weeks before farrowing the brood sow needs special attention and care. She is best confined, her exercise reduced, and to some extent her feed. Some hog men place her in an individual stall in a central hog house, with an adjoining outside pen of limited area; others place her in an individual farrowing house, surrounded with a small pasture lot. Particular attention should be given the bowels at this time. Loosening feeds in the form of slop are highly desirable. In the 24 hours preceding farrowing it is best that she get nothing but lukewarm water, or a very thin, warm slop of ground oats, shorts, or linseed meal.

The place of farrowing should not be exposed to drafts, altho proper ventilation is necessary. The walls should be surrounded by a two-by-six or a two-by-eight fastened 6 or 8 inches above the floor, to prevent the sow from crushing her pigs. The pen should be clean and dry, and there should be a moderate amount of bedding. When the milk begins to show in distended teats and the sow begins to try to make a bed, farrowing is soon to come. If the sow is in good condition and seems to be quiet she should not be disturbed. The wise hog man, however, is ever in the offing, and frequently takes a look-in to see how things are coming along. If assistance is necessary it should be given, in a quiet, patient, sympathetic manner. If the sow has previously been taught to look on the attendant as her friend she is seldom likely to resent his help.

Every little piggy, as he comes into the world, is entitled to his dinner; if he can't get to it himself he should be aided. In comfortable weather he usu-

ally will get along by himself, but if it is cold care must be taken that he does not become chilled. Heated bricks in a covered barrel or a box are a help, and an oil heater nearby may serve the same purpose. Sometimes, in bitter weather, he may need to be carried to the house to bask in the heat of a warm stove. Under such circumstances it is well to wipe him dry. Oftentimes pigs that are born apparently dead may with a little attention be started to breathing. First see that the mucus or slime is not obstructing the mouth and nose; wipe it off. Then hit him a few light slaps on the side. After he has started breathing and has had a little pull at the teat, he may be given warmth.

Good hog men say that if a sow has been fed properly she will not try to eat her pigs, but this is no reason why she should be tempted to carnivorous habits by allowing her to eat the after-birth. That is an article which should be removed and buried or burned at once. The little sharp teeth of the pigs are best broken or clipped off, so that the sow's udder may not become lacerated and sore.

After Farrowing.

For 24 hours after farrowing the sow will need nothing but lukewarm water. Then she may have a thin, warm slop, which is increased gradually in richness from feed to feed. In a week she should be back on the ration she was getting during late pregnancy. Gradually the ration must be increased, as also may be the proportion of fattening feeds. As the little pigs grow, becoming larger and stronger, they require more and more feed, and the wise feeder will see that the milk flow of the sow is adequate by giving the necessary feed. This is the time when the feeder gets the fullest value for his money, for at no other time will the pigs make greater gains on the same amount of feed.

But suppose the pork producer does give the best of housing, the best of feed and feeding, and the best of attention at farrowing time; even then he may suffer enormous losses. Disease—cholera, lice, worms, pneumonia, tuberculosis, and a score of other possible troubles—may decimate the herd. Some of these troubles may not kill the animals; they may only prevent profitable gains. Others may wipe out the whole herd. What gains the hog raiser if his sows farrow the best pigs in the whole world and he then allows disease and pestilence to ravish them unchecked?

Away With the Diseases.

Sanitation, serum, and approved correctives must be used to reduce pig losses. No investment of time and money will bring greater returns than the prompt removal of filthy litter and offal, and the liberal application of disinfectants. The effective control and prevention of hog cholera, by the use of pure, potent serum properly administered, has been forcibly demonstrated in Marshall and other adjoining counties. No doubt can now remain as to its reliability. Charcoal, ashes, lime, salt, sulfur and copperas, as a worm preventive and tonic, have been found very useful. Care in not permitting too many hogs to pile up, become heated, and get pneumonia, and in keeping little pigs out of a cold rain, are matters of plain common sense.

All this is but suggestive—remindful of things that every progressive hog man already knows. The simple fact of the matter is that if every hog raiser would do the best he knows the number of dead pigs a year would suffer an amazing slump. The point we desire to ram home is that the more valuable pigs become—the higher the price of pork and the greater the need of humanity—the greater should be the effort of the hog raiser to save every pig that he can. Carelessness is pure wanton waste—un-American and unprofitable. Why not eliminate it this year in Kansas? Let's put our best efforts into the producing of the pork crop of 1918 and increase it greatly.



Pasture Crops Must be Used Extensively for Hogs if the Best Profit is to be Obtained; Alfalfa is Especially Valuable.

Let's Use the Winds for Our Farm Power

A Good Mill Can be Built Cheaply in Kansas and it is Efficient When Managed Properly

By P. E. Fuller

WINDMILLS have been popular and efficient in many Kansas communities. This probably will be true to an increasing extent in the future. In building a mill it is well to select a place which is amply strong to withstand the highest wind velocities, even though strength may not be required usually, as the damage resulting from failure will more than offset the additional cost for the added strength. The tripod, or three-legged mill, is lighter and allows trussing in a better manner, and even if the parts are proportionately heavier, the weight is less than that of the tower mill; but if the tripod is cheap or poorly constructed, it is more hazardous than the four-post mill of similar construction.

Careful attention should be given to the anchors and their footings. These should have plates of large area set upon a solid foundation and firmly bedded in place.

Wooden Towers.

Wooden towers are good where clear timber is available at a reasonable cost, but unless they are built substantially and kept painted their life is short and they may fail at a crucial moment. If wood is used, the anchor posts should be bolted firmly to "dead ends" laid across the bottom of the excavation, and the entire anchor should be well tarred or charred to prevent rapid decay.

The height of the tower has much to do with the success of a mill. It should never be located where the wind is obstructed in its free access to the mill, and it should be high enough above the ground to realize the full effect of the wind. Ordinarily 40 feet will give excellent results, tho in some places the wheel may be set only a few feet above the ground.

If more than one mill is used, the location with respect to each other should be given consideration, for if placed in line with the prevailing wind one will obstruct the wind consid-

ably, even if they are placed at such distances apart as 500 feet.

When mills are shipped from the factory they usually are crated and require assembling completely in the field. Instructions always accompany the shipment and with care no trouble will be experienced in the erecting. After the mill is entirely assembled it should be inspected carefully to ascertain whether all the parts are placed correctly. In raising the mill it should be blocked up as high as possible and a 2 by 12 plank should be bolted upon the legs against the ground. Four by 4 sheer legs should be set astraddle of the tower about one-third up from the base, and over the crotch in these legs a stout cable or rope should be made fast to the mill head, the free end being fastened to a set of tackle blocks.

Four-sheave and three-sheave blocks for 1 1/4-inch rope are best, one end of the blocks being made fast to the anchor. The free end of the line can be fastened to a doubletree and a team of horses can be used to raise the mill. Three strong guy lines, one in the rear and one on either side, should be made fast to the head to steady the mill when raising. It is well to choose a day for raising the mill when little wind is blowing.

It is unfortunate that the windmill has attained a reputation of not needing attention except at times of breakdown, and conditions are aggravated by the attempts of makers to include automatic oiling devices, which are said to be so reliable as to need no attention during a season. While such devices are commendable in machines operating in places where daily observation is possible, they are out of place in a windmill, which by virtue of its nature must be placed high above the ground, where a special effort must be made if inspection is had, and where it is exposed to the dust and the elements and where the loosen-

ing of a bolt may ultimately cause the ruin of the entire engine.

Probably from no machine is so much expected for so little attention as from a windmill, and probably no machine will give so much in return for so small an investment and so great an amount of energy from nature's store without cost to man. It is a mistake for manufacturers to advertise the simplicity of their particular make of mill and the small amount of attention needed, for in doing so they encourage a still greater neglect and indifference on the part of owners.

It is to be hoped that as the demand for irrigation plants using wind power becomes recognized, manufacturers will strive to build mills of heavy construction scientifically and mechanically built with all working parts machined properly and provided with liberal and positive oiling facilities, and will make vigorous efforts to impress upon the users the similarity between the windmill and any other type of engine with respect to the necessity for thorough oiling and systematic inspection. It is further to be hoped that the purchaser will not be guided in his choice by the cheapness of the product, but by excellence, and it is not amiss to say that very often the cheapest article, whether a mill or a wagon, is in the long run the most expensive.

The speed at which pumps of the windmill type give the best results consistent with long life is at a maximum of 30 strokes a minute, but better results will be obtained if the length of stroke is increased beyond that usually adopted by mill manufacturers, leaving the cylinder diameter the same and reducing the number of strokes, but lessening the crank speed by gear reduction so the quantity of water pumped a stroke is increased. The reason for this is that the column of water would be required to be

started less frequently than otherwise, resulting in less wear and thrust in the pump and mill parts. In this respect a back-gear mill with greater reduction in gears and a consequent longer stroke would be preferable to the direct short-stroke type. Such an arrangement, however, requires that the gears be designed with ample face or tooth area, and liberal strength in the parts. When the pump operates against a low head and thru only a short and large pipe to the reservoir the objection to short strokes is not so serious.

Efficient Pumps.

In choosing a pump for a particular mill the matter of size can be left to the mill manufacturer, but even in such a case an understanding of the principles involved is desirable. A few points in the construction of a pump are of great moment to its successful operation and are given herewith.

(1) It should be insisted upon that the pump have a large stuffing box or gland—if it be of the pressure type—where the piston rod leaves the pump. This gland should be packed with a good grade of graphite packing.

(2) The cylinder or its lining should be of brass, seamless, and polished on the inner walls.

(3) The piston should have ample space for the best leather packing and the "follower" should be arranged so as not to become loose.

(4) The piston rod should be of bronze or heavily encased with brass casing, and in either case should be at least 1 1/4 inches in diameter.

(5) The guides for the crosshead should be of large diameter and be perfectly parallel to the piston rod in all positions.

(6) The ports or water openings thru valves should be large and free.

(7) A generous air chamber should be provided at the discharge opening of the pump. Its capacity should be at least three times the capacity of the cylinder and a greater capacity than this will do no harm.

Away With all the Kansas Garden Pests

Why Not Get a Larger Part of the Food Supply of the Family This Year from the Vegetables?

A MUCH larger supply of food than usual can be obtained this year from the Kansas farm gardens. This is of the greatest importance. Prices for all food products will be abnormally high, and there is an actual shortage. Every garden should produce as much of the food at home as possible.

Good results will not be possible unless a definite program is developed. In many cases the garden should be made larger than usual. In all cases it should be tended. The average person understands the general way the things are done for success with vegetables, but many have not had good gardens on their places because there was not enough labor put on the soil. It will work if the garden yields its share of the food this year.

Many things are necessary. In most cases irrigation will be helpful. Well rotted manure will aid. An effort must be made to control diseases. Perhaps the most important thing, however, is to fight the insects. These pests cause a huge loss in the gardens every year in Kansas. Why not control them this season?

Garden insects in Kansas may be divided roughly into two great classes on the basis of their mouth parts and habits of feeding: first, the chewing or biting type which actually eats the stems, leaves and fruits of plants;

second, the sucking type which with a long sucking beak draws out the plant juices. The army worm is a good example of a biting and chewing insect, while the plant louse or aphid represents a sucking type. Advantage of this natural division is taken in controlling insects.

It usually is possible to kill all insects that bite and chew by dusting or spraying arsenical poisons over the infested plants. Stomach poisons like Paris green and arsenate of lead are used. It is necessary to cover the plants thoroughly with such poisons because in many cases the insect may seek and feed upon the parts of the plant not covered by the poison dust or liquid.

It is practically impossible to poison the sucking insects because by means of their long sucking beaks they are able to draw out the plant juices from beneath the surface without taking any of the arsenical poisons. For the sucking type of insects, therefore, a contact wash or spray must be used. The solution kills the insects by coming in contact with their bodies, smothering, corroding, burning and penetrating their living tissues. Such sprays as kerosene emulsion, strong soap suds, and tobacco solutions may be used. Only those insects that are actually hit by the spray will be killed, hence the importance of thorough spraying to wet every insect.

Melons and other plants which are injured easily by strong washes should not be sprayed with miscible oils like kerosene emulsion. For such tender plants, strong soap suds and tobacco solutions are much less likely to burn the plants. If care is used, sucking insects on plants like corn, cabbage, and radishes may be killed with a 5 to 7 per cent. solution of kerosene emulsion without injuring the plants.

There are so many insects and diseases which attack garden crops that it is impossible to mention them all here. They are all listed, with measures of control, in an excellent 72-page Farmers Bulletin, No. 856, Control of Diseases and Insect Enemies of the Home Garden, which was issued recently by the United States Department of Agriculture, Washington, D. C. Every reader of the Farmers Mail and Breeze who expects to plant a garden this year should send for it. The bulletin is sent free; a postcard request will bring it to you promptly. You will thus be supplied with the information required in the control of all ordinary insects.

This is the only way to get the largest returns from your garden. Become familiar with the insects and diseases known to occur in your district on the crops you are growing. Equip yourself in advance with all necessary remedies and the means of applying them. Remember that the

timely application of a remedy acts as an insurance against loss.

Watch constantly for the first appearance of a disease or insect. Inspect the garden at least every other day. Determine what is causing injury and apply the proper treatment promptly. Use the combination treatments in case a complication of troubles is present. Repeat treatments as often as necessary, keeping in mind the influence of weather conditions as well as the life history of the insect or fungus causing the disease.

Use insecticides and fungicides in the proper dilution to accomplish the object without injuring the plants. Standard remedies are best. Test others experimentally before using them on a large scale.

Use the best sprayers. A thorough application is necessary for the best results. Adjust the sprayer so that all parts of the plant that are exposed to the air will be covered.

Work for co-operation in the neighborhood. One badly infected or infested garden may be the source of disease infection or insect infestation for several near-by gardens. Keep your own garden clean and it will be an object lesson for careless neighbors and will have a tendency to help clean up the neighborhood. This will make control easier and cheaper another year.



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A Record With Hens

The Farm Poultry Outlook in Kansas for 1918 is Excellent

By George Cugley

POULTRY RAISERS generally appear to be under the impression that the price of eggs and poultry-meats should advance cent for cent with the price of feeds. Many poultrymen who had been selling their eggs at 30 cents a dozen, when scratching feed was selling at \$2 a hundred, expected to get 60 cents a dozen for eggs when scratching feed advanced to \$4 a hundred, when, as a matter of fact, it is not at all necessary for eggs to sell at 60 cents a dozen with feed at \$4 a hundred in order to show a substantial profit.

It seems to be the custom with many poultry raisers to make their comparisons between 100 pounds of feed and a dozen eggs, which is not at all in keeping with the established practices that are followed by the modern commercial poultry plants.

Accurate Records.

The percentage of poultry raisers who keep an accurate record of their transactions is exceedingly small, and this is indeed unfortunate, because without an accurate accounting system in any business, there is always a likelihood of jumping at conclusions that are not founded on facts. During the last few months I have heard and read statements by a great many poultrymen who had been honestly convinced that they had been operating their plants at a loss, when, as a matter of fact, they had no way of knowing for a certainty where their profits were really coming from. Simply because the price received for eggs and fowl had not advanced cent for cent with the cost of feed, they jumped at the conclusion that they were losing money.

There appears to be but one way to figure the profits or losses in the poultry business, and that is to figure the cost of maintaining a hen for a year against the value of the eggs she produces. That erroneous idea of comparing 100 pounds of feed with 1 dozen eggs is so misleading that it is not worthy of consideration, and the readers of the Farmers Mail and Breeze will be doing their poultry friends a favor by pointing out the impossibility of accurately figuring profits on that basis.

A short time ago I attended a meeting of the Ohio Poultry Breeders' association, where Prof. A. B. Dann, of the Ohio State University, presented some facts that were truly amazing to some of the breeders in attendance. Many of these breeders had formed the opinion that they had operated their plants at a loss, but when they began to figure the thing out on the proper basis, they were agreeably surprised to find that they had actually been making a very satisfactory profit and did not know it. After I returned home from the meeting I wrote to Professor Dann, asking him for some of the figures he gave in his talk at the meeting. His letter to me is as follows:

"I have just found an opportunity to answer your letter, and will give you the figures which you heard me mention at Columbus and Cleveland.

Average cost of Cornell ration—both grain and mash—1915 and 1916 \$1.80 a cwt.

Average cost, same ration, 1917, 3.11 a cwt. Increase.....\$1.24 a cwt., or 66.3 per cent. For the same period, increase in price of eggs—the highest New York quotations.....30.2 per cent. Increase in price of other poultry products.....26.5 per cent.

"Assuming that a well-kept commercial flock will average 10 dozen eggs a hen, and basing the value of these eggs on the average price for 1915 and 1916; which was 30 cents a dozen, they would be worth \$3 a hen a year. It requires approximately 75 pounds of grain and mash to feed this hen for one year. This would cost, at \$1.87 a hundredweight, \$1.40 a hen a year. Subtracting the feed cost from the value of the eggs would leave \$1.60 a hen a year over feed cost.

"The same number of dozens of eggs for 1917 at the increase of 30.2 per cent in price would be worth \$3.90. The 75 pounds of feed for 1917 at \$3.11 a hundredweight would cost \$2.32. This would leave a balance over feed cost for 1917 of \$1.58. This, you will note, is but 2 cents below the return above feed cost for the average of 1915 and 1916.

"The whole point in question is that we should consider the proposition from the standpoint of cost a unit of production, and the unit of production is the hen-year. The price of 100 pounds of feed may be the unit of purchase, but it is not the unit of cost of production. Likewise, the price of 1 dozen of eggs may be the unit of sales, but it is not the unit of income. Briefly considered, when feed increases 100 per cent in cost a hundred pounds, it is offset by an increase of approximately 40 per cent in the price of eggs a dozen."

To Determine the Profits.

A little figuring on your part will convince you beyond doubt that the plan set forth in Professor Dann's letter is the only practicable basis on which poultry profits can be figured, and if the average poultry raiser were reaping a gross profit of \$1.58 a hen, over and above the cost of feeding during 1917, there certainly was no cause for complaint from the standpoint of profit. It is not at all unlikely that the cost of feed as applied to the Cornell ration may be somewhat less than the cost of feed to many individual breeders, but in any event, it will only be necessary for such breeders to make a comparison between the average cost of their feeds during any two years in order to determine the actual difference in the gross profits.

It also should be noted that had it not been for the panic which struck the poultry breeders during the early part of 1917, the market prices for eggs and poultry would have been materially higher than they were. Many poultry raisers have been complaining because they were compelled to sell their products at prices that were not in keeping with the advances in food, but it certainly would not have been fair to have permitted the cold-storage men to have charged an exorbitant profit on the poultry and eggs they had in storage which had been purchased at the prices that were in effect during the early months of 1917. The cold-storage houses were called on to supply about 80 per cent of all the

poultry and eggs that were consumed during the last half of 1917, and Mr. Hoover certainly would not have been faithful to his trust had he permitted the owners of this tremendous amount of poultry and eggs to reap an exorbitant profit on their 80 per cent for the benefit of the men who were producing the other 20 per cent.

The situation for 1918, however, shows every promise of being the most profitable year for poultry keepers that we have seen for many years, and with this evidence at our command, every encouragement should be offered to start new breeders in the business and encourage those already in the business to enlarge their operations. The tremendous cold-storage stocks that were on hand during 1917 have been almost entirely exhausted, so that from now on the values of both poultry and eggs will be based on the present cost of production.

Satisfactory Returns.

In every line of business we find that values fluctuate from season to season in accordance with the existing conditions, and this situation is certainly true of the poultry industry.

The logical time to start the fiscal year for the poultry industry is January, and if the January prices for eggs and poultry can be used as a basis, we are going to see an absolutely satisfactory scale of prices maintained thruout the current year. Aside from any other argument that might be advanced, it must be admitted that hatching eggs and baby chicks must form the basis of all poultry values, and if we take the prevailing prices on these two items as a criterion, even the most pessimistic person can see the signs of encouragement.

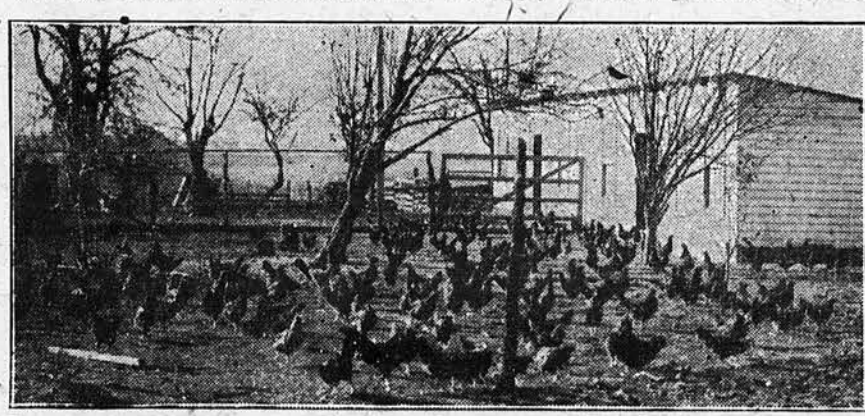
Now suppose that we assume that the average price of strictly fresh eggs during 1918 will be 48 cents a dozen, and that the average cost of poultry feed will be \$4 a hundred. It is a well-known fact that 75 pounds of food will feed a hen for a year and that the average hen produces 10 dozen eggs in a year. On this basis it would cost \$3 to feed a hen for a year with food at \$4 a hundred, and the value of 10 dozen eggs at 48 cents would be \$4.80, which would leave a profit of \$1.80 a hen on the most conservative basis.

Eggs for hatching that could be purchased in normal times at \$5 or \$6 a hundred are selling at \$8 to \$10 a hundred, while baby chicks that sold in normal times at \$12 to \$15 a hundred are selling anywhere from \$18 to \$25 a hundred, and it naturally follows that the market prices of both poultry and eggs are going to be in keeping with the market prices of hatching eggs and baby chicks.

Prices of Feeds.

For some months past we have heard considerable complaint because the Food Administration has not compelled a reduction in the prices of poultry feeds, and while we have been encouraged to believe that there was going to be some drop in the prices of poultry feeds, we think it is high time for us to realize that any reduction that might come as a result of cheaper corn will not be very material. Assuming that corn will be sold thruout the year at \$1.28 f. o. b. Chicago, it still would be necessary for the retail dealers in poultry feeds to sell scratch food at about \$4 a hundred. With wheat at \$2 a bushel on the farm and corn at \$1.28 a bushel f. o. b. Chicago, it is not hard to understand why scratching food must sell at \$4 a hundred—nearly two bushels—when we add the cost of transportation, sacks, labor and a reasonable profit for the people who handle this grain between the producer and the consumer.

Instead of anticipating a reduction in the cost of feeds, it would be better business to assume that these prices are going to stay about where they



There Is an Excellent Outlook for Profits from the Farm Flocks in Kansas; the Demand for Poultry Products Will be Large.

(Continued on Page 33.)

What the Bees Do

Why Not Harvest More of Your Good Farm Honey Crop?

By J. Troop

IN EVERY well organized colony there are three classes of bees; the queen, workers, and drones or male bees. Every class has its special function to perform, and we cannot say that one is more important to the colony than the other, as all are necessary to the well-being and success of the colony.

A queen is the only perfect female, and, of course, she is the mother of all the other bees in the colony. Her duty is simply to lay eggs to keep up the supply of bees in the hive. Cook reports having seen her lay 3,000 eggs a day. These eggs are placed on one end in the bottom of the brood cells, and whether they are to hatch into drones or workers depends solely upon the wishes of the queen. If conditions of the weather are such as to effect the nectar flow so the workers are off duty for a time, she will almost invariably lay drone eggs. If the colony becomes too densely populated, she will lay drone eggs.

About the Eggs.

This is accomplished by simply withholding the male, or fertilizing fluid, and allowing the eggs to pass out unimpregnated. This operation is entirely within her control. On the other hand, when everything in the hive is running under normal conditions, with an abundant nectar flow and plenty of room, she lays fertile eggs in worker cells, which hatch into undeveloped females or workers; the reproductive organs are undeveloped.

The time required to produce a queen, a worker, and drone from the egg is 16, 21, and 24 days respectively. The function of the queen is solely to lay eggs. The function of the drone is to impregnate the queen, while the function of the workers is to do all of the manual labor, both inside and outside the hive, such as gathering the nectar and pollen, manufacturing them into bee bread for the young bees, placing it where the young bees can get it without much effort; secreting the wax and building the comb, and sealing up the cells when they have been filled with honey and this has sufficiently ripened.

Cells which are built by the workers are not all of the same size; those which are to contain drone bees and the honey cells are about $\frac{1}{4}$ inch in diameter, while those which contain the workers are only about 1-5 inch in diameter. The relative amounts of drone and worker cells can be controlled to a certain extent by the beekeeper, by the use of artificial comb foundation as a starter. This consists of thin sheets of pure beeswax which have been run thru a stamping machine, similar to a clothes wringer, which makes an impression on both sides of the sheet of wax of the exact size and shape of the bases of the cells. On this foundation the bees draw out and build up the cells in both directions. If they wish drone cells they simply enlarge the cells to the required diameter.

Queen Cells.

Queen cells are constructed independently of the others, and only when they are needed to produce new queens. These are much larger than the other cells, resembling small peanuts in size and shape, and usually are placed on the edge, or in an opening in the comb.

When settled warm weather arrives, and the first spring blossoms appear, work begins in earnest and from that time on until cold weather arrives in the fall all is hurry and bustle both outside and inside the hive.

As soon as the early workers begin to appear the colony begins to increase rapidly until after a time the queen, apparently seeing that the house will soon be overcrowded, begins laying drone eggs in drone cells, which the workers have previously constructed. Queen cells are started, often three or four, sometimes 10 or 12, and soon after this, some fine day along towards noon, after considerable commotion around the hive and after having filled

their honey stomachs with food, the bees rush out in a swarm, the old queen with them, altho she is often among the last to leave the hive.

This swarm usually lights upon a tree, shrub, or even a fence close by, and often remains there for a considerable time, probably until the bees are satisfied that the queen is with them, because it would be fatal for them to go off without her. Then, unless the beekeeper has seen them and taken them in they will go to the woods and find a new home in a hollow tree. This is a time when the beekeeper should be constantly on the watch in order to prevent the loss of swarms.

The old colony has been greatly depleted in numbers, but young bees are constantly emerging and a new queen will soon be out, and if the weather conditions continue favorable, in 10 days or two weeks, a second swarm may be given off. The first young queen to come out goes with this swarm. Should weather conditions change after the first swarm has gone out, thus cutting short its swarming inclinations, the remaining undeveloped queen cells will be destroyed; otherwise the young queens will be allowed to develop with the expectation that they will be needed.

A queen mates on the wing, and only once during her lifetime, which may be four or five years. Of course, she receives enough male fluid to last her during her lifetime. After mating, she never leaves the hive unless she goes out with the swarm. The queen may live and do good work for three or four years, but most beekeepers prefer to replace her with a new one after two or three years in order to keep up the vigor of the colony.

Swarming of Bees.

There are several conditions which may cause the bees to swarm; first, over-crowding. When honey is being stored rapidly and breeding is rapid, the frames soon become filled with honey and brood, and the bees then prepare for a division of their forces, and a portion of the occupants move out. The first swarms usually come out from this cause, but later other swarms go out seemingly on the least provocation. The number of swarms will depend largely upon the amount of brood, the rapidity of nectar gathering and weather conditions. No swarm will go out, however, permanently, at least, unless there is a queen to accompany it; one or two swarms a season is enough where the object is honey, instead of an increase in the number of colonies.

Generally speaking, early swarming is preferred, as it enables the new colony to become well established and ready for the rich stores of nectar from the later flowering plants. The old adage states it thus:

A swarm of bees in May
Is worth a load of hay;
A swarm of bees in June
Is worth a silver spoon;
A swarm of bees in July
Is not worth a fly.

In early times and under the old methods this was largely true, especially for the colder climates, but under modern methods of beekeeping the later swarms are often made very profitable.

For the amateur beekeeper, where honey is the object, swarming should be eliminated, so far as possible, as much of the energy of the bees is dissipated during the unusual excitement. As already stated, over-crowding is the principal cause of swarming. This may be remedied to a considerable extent by dividing the colony and starting a new one, or by placing an upper story on the hive consisting of an empty hive filled with frames and artificial comb foundation. This may be followed by another and even another, if the conditions warrant. By placing a queen excluder over the first hive the brood comb will be confined to the lower hive.

In dividing, two or three brood frames together with the bees which

adhere to them may be taken from the old hive and placed in the center of a new one which is then filled with empty frames with starters. Give the new colony the old queen or else let them develop one from the young brood. Fill the vacancies in the old hive with empty frames, which will supply plenty of room for all to work. Cutting out the surplus queen cells and extracting the honey will often delay the swarming, but seldom prevents it altogether.

When the swarming fever is on, and dividing is resorted to, it is best to give the new colony the old queen, and re-queen the old colony with a new one. This will often upset their plans and cause them to settle down to storing again. Where extracted honey is desired, give plenty of room, ventilation and shade; for comb honey, ventilation, shade, and artificial swarming are prime factors.

Strong Colonies.

Strong colonies are the secret of success. As the bees come thru the winter their numbers are very often reduced to such an extent as to require some time and effort on the part of the beekeeper to bring them up to standard strength of from 40,000 to 50,000 worker bees. This may require stimulative feeding. As it requires 21 days to produce a worker from the egg, and two weeks or more before it will take its place among the gatherers in the field, it will be seen that the queen should begin laying eggs five weeks or more before the honey flow begins. During the period of nectar flow from the early flowers, the queen will not require any stimulating, but there are always periods when flowers are scarce and honey flow naturally ceases, when feeding must be resorted to in order to keep the colony up to its full strength.

The first and most important product of bees is honey, and its natural use is to feed the bees. What is honey? Cook says it is digested nectar, a sweet, neutral substance gathered from the flowers. The chemical composition is very varied, owing to the large number of different kinds of flowers from which it is gathered. Then, too, the thoroughness of the digestion will affect the composition of honey. The longer it remains in the honey stomach, within certain limits, the better is the quality. That is, if the bee pasture is located a mile or even 2 miles from the apiary, the honey will be of a better quality than if the bees had to go only a few rods after it.

Colors of Honey.

Not only does the chemical composition of honey differ as it comes from different flowers, but the difference in color is even more pronounced. This will vary from "water white," as it is sometimes called, to a dark amber color. The light-colored honey in this section of the country comes from the clovers, basswood, raspberry, fireweed, apple, cucumber, and even the Canada thistle makes a very fine honey. The golden rod, heartsease, sunflower, Spanish needle, milkweed, sumach, poplar, gum and horsemint make an amber-colored honey, while the dark honey comes from buckwheat mostly.

For ordinary use on the table, the great majority of people prefer comb honey, or honey in the comb. For convenience in handling, this usually is produced in 1-pound sections which are placed in supers above the brood chamber. In order to secure an abundance of honey in this form, the colony must be kept strong, and the queen encouraged to begin laying early and constantly, so the brood chamber may be well filled with brood before the main honey harvest begins. This will drive the worker bees to the supers with their stores, and as soon as the sections are well filled and the cells capped, the bee escape board may be placed between the hive and super and left there over night, when the bees will have all gone down below and the super may be lifted off and replaced by another filled with empty sections.



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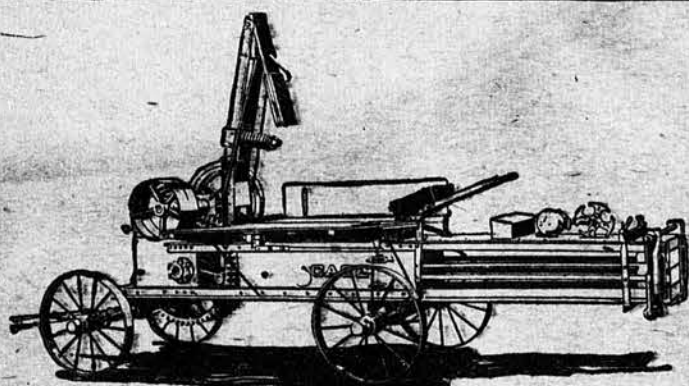
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BY HARLEY HATCH

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For a Better Crop Rotation.
Straw for the Potatoes.

HERE IT IS almost the first day of March and we have had nothing that could be called rain since the middle of October. All our moisture since that time has come in the form of three light snows which blew badly and in most instances left the wheat uncovered. Despite this the wheat still appears alive and ready to start out when rain and warm weather comes. Wheat growers are praying mightily for more moisture but the tenants who have to move would like to do so on dry roads.

It is common to pity the tenant who has to move every year yet in many instances I think that pity is not asked. It is fun for some men to change their location often whatever it may be for their wives. The moving fever can get hitched to one very easily; I know men who have lived in almost every state west of the Mississippi River and east of the Rockies who would not be satisfied with the best farm in the West. Inside of a year it would be sold and the hunt for other pastures begun.

Requests for seed grain of various kinds continue to come. In reply to all such I would say that corn grown here is not suited for the north part of Kansas. I know it is not far up there but that 75 to 100 miles seems to make a change in the corn; our corn is not suited for their latitude and their corn, aside from a little for an early crop, is not suited to this locality. To all persons who wish seeds let me say that the Kansas State Agricultural college, Manhattan, Kan., issues a long list of farmers in all parts of Kansas who have all kinds of seed for sale. If one is needing seed corn, kafir, milo, fetterita, cane or Sudan grass seed let him write to the college and ask for this list. It is sent free. The college does not guarantee the seed quoted in this list but it says that to the best of its knowledge it is good seed.

A big effort this week to get Mr. Cotton, the government fixer of prices on livestock, to raise the \$15.50 minimum on hogs failed. Mr. Cotton pretended to get an expression of opinion on this question from all the different bodies and individuals who raise and deal in hogs, but it seems to me in wording his inquiry he was guilty of something which is a little like sharp practice. Instead of asking the hogmen if they thought they were entitled to an increase in price he asked, "Are you in favor of abolishing the minimum? Answer, yes or no." This put it up to the hog men with a vengeance; if they said "yes" they would not have even their present poor line of defense left; if they said "no" that put them in line with Mr. Cotton in saying that \$15.50 was enough for hogs even tho fattened on corn worth \$1.75 a bushel.

The way Mr. Cotton phrased his question in the foregoing paragraph reminds me of a story I read a good many years ago. A question had been asked in some court and the witness had been directed to answer "yes or no." One of the attorneys objected, saying that the form of the question was unfair to be answered in that way. To which his honor observed that any question could be answered "yes or no." "All right," said the attorney, "will you answer one for me that way?" "Certainly," said the court, "go ahead and ask it." "Your honor," said the lawyer, "have you quit beating your wife?"

Despite the present loss in hog feeding I am of the opinion that those who raise spring pigs and feed them for the winter market will profit by doing so. It is true there is no law fixing the price on a ratio of 13 bushels of corn to 100 pounds of pork but if that agreement does not hold there will be a bad time in store for the Food Administrators. They are in honor bound to hold to that ratio after having allowed the farmers to produce pork at a loss for several months. That ratio allows

a profit no matter how high the price of corn may go and you may be sure the farmers will hold Mr. Cotton to it.

We have completed the covering of one alfalfa field with manure but lack something like 25 loads of having the other covered. It has been the experience of alfalfa growers on the uplands here that a stand can be held only by the use of manure. Our oldest sowing dates from 1912; it is on thin upland but still has a fine stand, yet last year we could see signs that fertilizer was needed. If it is not applied on our upland foxtail creeps in and the alfalfa soon is gone. We think highly enough of our alfalfa to give it the manure even at the expense of the grain fields.

We still have in the barn enough alfalfa hay to feed us another year and we are not caring whether we sell it or not. The results it is giving us this year in calf feeding make us consider good alfalfa in the mow equal to good corn in the crib, and we all know that beats money in the bank in these times.

Despite the present and prospective high price for corn we will not this year have so large a proportional acreage as usual. In former years corn was raised on two-thirds if not three-fourths of all our cultivated land but we have learned better than to keep this up and by experience, too. Continual cropping to corn or kafir has put a lot of the land in this country down mighty close to the line where it cannot be made to produce profitably. We have on this farm 120 acres of plowed land, 80 acres of prairie pasture and 40 acres of prairie meadow. Our cultivated land will be cropped this year—if Providence permits, as, an old New England deacon used to say—50 acres to corn, 43 acres to wheat, oats and rye, 18 acres to alfalfa and the balance to kafir, potatoes, garden and the like. Our aim is, as soon as the war is over, to still further cut down the grain acreage and to sow tame grass for pasture.

For some years we have had no material for mulching potatoes. The haying seasons have been such that no hay was spoiled and unspoiled hay has sold at from \$8 to \$20 a ton in those years. Consequently, it was worth too much to mulch potatoes with. This year we are going to have a stack of oats straw left over and we aim to use most of it on the potato patch. This straw could have been sold at a good price last fall but we thought it too good to let go and intended to feed it to our stock. But we find that the stock only care for it to lay on; it makes good beds but is not relished as feed. I think this is because the straw bore a fully matured crop of grain; all the good quality went to the grain, leaving none in the straw. To look at it one would say no straw could be nicer but as it contains no grain I think it will be worth more as potato mulching than as cow feed.

The main part of our potato crop this year will consist of Eurekas and the seed will be about all home grown. We have grown this variety of potato here for years and to my knowledge no new seed stock has been imported from the North in that time. Despite that, our potato crop last year yielded exactly 100 per cent better from the Eureka rows than from those planted to Early Ohio, the seed of which had been grown here but one prior season. We shall this year again plant some Early Ohio and shall buy imported Red River stock for seed. We also have ordered 1 bushel of extra fine seed stock from a noted Wisconsin grower to be used in raising seed for another year. This bushel consists of one peck each of Eureka, Early Ohio, Irish Cobbler and Early Six Weeks. A fair equal trial of these four sorts this summer should tell us which is best adapted to our conditions. We have raised all four varieties here in the past and our experience with them to this date is that Eureka is our best potato for the home supply. We have no seed for sale.



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A United Effort in Buying

Get a Good Manager the First Thing

BY FRANK ROBOTKA

THE HISTORY of distributive co-operation in the United States is full of vicissitudes. There have been both successes and failures. Since the beginning of the movement in Massachusetts, in 1864, many attempts have been made to establish co-operative stores on the Rochdale plan, which have been so successful in Great Britain. Among the organized attempts on a large scale may be mentioned that of the Patrons of Husbandry in 1867, the Sovereigns of Industry in 1874, the Knights of Labor in 1882, and the various efforts of the Farmers' Alliance. Although in some cases brilliant successes were achieved, few of the stores fostered by these organized efforts remain.

Among other and more recent efforts covering a less extensive territory, may be mentioned the Kansas State Co-operative association, organized in 1901; the Washington State Co-operative union, in 1903; and the Right Relationship league, in 1900. Of these, perhaps the last is meeting with the greatest success, its efforts being limited mainly to Wisconsin, Minnesota and Iowa.

Efforts thus far to federate co-operative stores for the purpose of organizing a co-operative wholesale association have met with little success.

Use Business Methods.

A survey of the history of the co-operative store movement leads to the conclusion that by far the greater part of the unfavorable record is due to the unwise propaganda of enthusiasts and to inefficient management. Stores frequently are organized without due regard to existing conditions, on the crest of a wave of enthusiasm aroused by propagandists and promoters. That merchandising, as a general thing, does not lend itself to co-operative effort so advantageously as to production and marketing is borne out by history and experience.

In England and other European countries the success of distributive co-operation is due largely to the fact that the store is not a separate, isolated institution, but is a unit of a vast scheme of federated stores. The stores are financed co-operatively; they are insured co-operatively; they do their wholesale buying co-operatively; many of the goods sold are produced co-operatively. The entire course of the commodity from its production to its consumption is "paved with co-operation."

Under certain conditions the co-operative store can perform a legitimate economic function, but it will meet with success only when attendant circumstances are favorable. Often instead of a co-operative store a co-operative buying association, for the purpose of clubbing orders for limited classes of goods, should first be organized, and this, if business warrants, may eventually be transformed into a co-operative store, carrying a varied stock and catering to various classes of people.

Rules for Success.

Clarence Poe, in his "How Farmers Co-operate and Double Profits," lays down five rules which should be observed in organizing co-operative stores:

1. They should never be started until a thoroughly safe and competent manager is found.
2. They should have what seems to be an adequate patronage in prospect, either thru taking the place of an existing store or by taking over the work of a co-operative buying society.
3. They should sell only for cash.
4. They should include townsmen, as well as farmers.
5. They should pay only legal interest on the stock and divide the other profits on patronage.

To these might be added that a store should provide for a sinking fund, should be governed on the one-man-one-vote principle, and should apply at least a part of the profits as dividends on purchases of stock, thus greatly increasing the working capital. This last principle has been one of the foremost factors in the marvelous success of the English co-operative stores. If due regard is given to these principles there is no doubt that a fair degree of success may be obtained.

In order for co-operative stores to be-

come general in a state like Kansas, it would be necessary for them to prove themselves more efficient than privately owned stores, for in most communities the profits of the latter cannot be considered excessive. The mere fact that a store is co-operative does not in itself tend to promote efficiency in management; if anything the tendency is in the other direction. The possibilities of reducing expense thru co-operative stores must lie chiefly in bringing about larger scale operation than prevails for privately owned stores and in eliminating those expenses which are due to competition itself.

If all the people of a community should join in patronizing a single co-operative store, the duplication of expense which results from the division of business among many small establishments might be prevented.

The very marked success of co-operative merchandising in the European countries has been due largely to a federation and extension of the co-operative principle to the wholesaling business and even to the manufacture of the commodities which the stores handle. There seems to be no immediate prospect that the stores in this state will be able to avail themselves of any such wide-reaching scheme of federation. Efforts to establish such federation in this country have thus far met with comparatively little success.

Results With 125 Stores.

In an investigation of the co-operative stores in Minnesota it was found that:

The number of co-operative stores is about 125 and is changing very little.

The figures for 1914 as compared with 1913 show an increase in the average gross sales a store, which, however, may have been due partly to the prevalently higher prices. The ratio of profit to sales increased appreciably.

About two-thirds of the companies reporting regarding the distribution of profits pay dividends, but of these a considerable fraction pay on stock only. Comparison of the two years indicates a slight tendency toward increasing stock dividends at the expense of trade dividends.

For all stores adequately reporting, the average gross sales in 1914 were \$45,836, the ratio of expense to gross sales was 11.7 per cent, and the ratio of net gain to gross sales 4.5 per cent.

If the success of co-operative stores be measured by the ratio of net profit to gross sales—which is an approximately correct measure in view of the general policy of selling at competitive prices—the following conclusions as to the influence of various factors upon success may be drawn from an analysis of the statistics.

Fair Ratios.

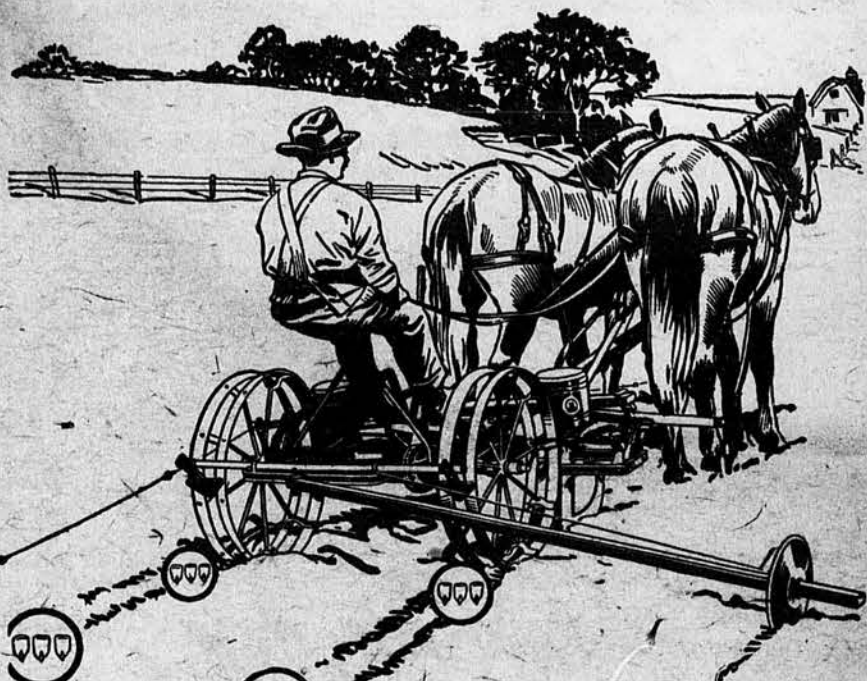
The factor showing the greatest influence is the ratio of total operating expense to gross sales. The lowest ratio is not always the best, but a fairly low ratio goes with much higher profits than a large ratio. The most satisfactory ratio appears to be about 10 per cent.

The rapidity of turn-over of stock greatly influences success. The largest net profit was found where the gross sales were about three times the inventory, and the lowest where the gross sales were one and three-quarters times the inventory.

Rarely does a co-operative store suffer because of too much paid-in capital stock. A capital equivalent to about 30 per cent of gross sales appears to be the most satisfactory. Stores with a relatively large indebtedness are generally decidedly less profitable than those with a small indebtedness.

The size of the business has considerable influence upon success, although some successful stores are found in groups of all sizes. Broadly speaking, the larger stores are the most successful and the very small stores make low profits.

In a business of a given size the most efficient management is secured by the managers with the higher salaries. They not only secure enough additional profit to pay higher salaries but also show a higher net gain over and above all expenses.



ACCURACY

BEFORE buying a corn planter consider this fact—accuracy is essential to the biggest yields. An inaccurate planter covers up its mistakes. It does hit-and-miss work. It is a "thief in the field" and you don't realize how much it has stolen until the corn plants are above the ground and you compare the results with those obtained by using an accurate planter. If it misses only fifteen kernels in every 100 hills there is a loss of five bushels per acre in the yield.

You can get a planter the accuracy of which is proven before it leaves the factory. That planter is the

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The Accurate "Natural Drop" Planter

The same accuracy that you would get if you painstakingly counted out the kernels of corn and dropped them by hand—that is the accuracy of the John Deere No. 999 Planter. It is the accuracy of the hand planting method made tireless and rapid by mechanical devices.

John Deere Planter accuracy is the result of 50 years' experience—50 years of thought, of study, of experimenting with that one goal always in mind—accuracy. The 999 has rightly been styled the "super-planter."

Careful design and workmanship have made possible this high degree of accuracy. Each kernel enters the cell in the seed plate in a natural position. The sloping hopper bottom feeds the corn to the cells whether the hopper is full or nearly empty. It is the most simple, yet most effective planting mechanism ever used on a corn planter.

You Control the Number of Kernels Per Hill

Without changing seed plates or even stopping the team you can plant 2, 3 or 4 kernels in the hill, whichever number you decide the land will sustain. Merely shifting

the foot lever varies the number dropped and you can change the drop as frequently as you desire. The variable drop mechanism of the 999 is just as perfect and well protected as the gears on the best automobiles.

You can also drill corn with the John Deere Planter. Change from hilling to drilling or back to hilling is made instantly by means of a foot drop lever. Not necessary to get off the seat or stop the team. The 999 Planter gives nine different drilling distances without changing seed plates.

You will appreciate the substantial front frame of this planter; the disc marker without any troublesome ropes; the underhung reel, easy to put on or remove; the great variety of seed plates for handling various sizes and types of seed and the quick detachable runners. This planter can be furnished with fertilizer and pea attachments, also with various types of furrow openers.

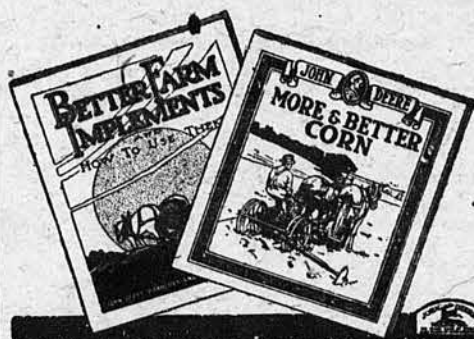
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"More and Better Corn." Beautifully illustrated in four colors—24 pages of interesting and valuable information for every corn grower. Tells how to prepare the seed bed, select, store and test the seed, shows the dollars and cents gained by accurate planting, explains just what is meant by accuracy in a corn planter, and describes the latest and best method of corn cultivation.

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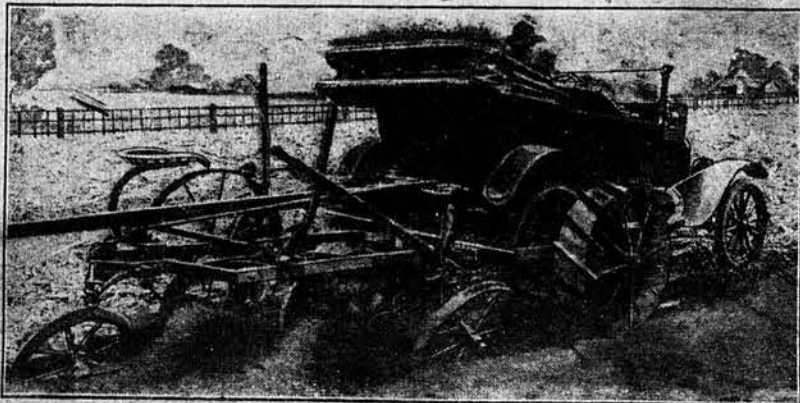
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Here is a Real "Hog Talk"

Pork Production Can be Increased—but it Takes Brains

BY EDWARD COOK

THE breeding of hogs if rightfully followed, is an art. It may sink very low, but if the knowledge and power, which are free to every breeder who chooses to make them his are properly applied, the breeder will not be unworthy of the name of artist.

The great law of nature is that, "like begets like." Every animal under ordinary conditions brings forth after its own kind. The first question that confronts us is the relative value of two animals that are to be mated. We have the two animals and from their union springs a third. This offspring is the product of parent nature. Certainly it is a result of an equal influence of male and female. But there is always variation. In a litter of pigs we may expect some to resemble the sire and some the dam. The union of the two may produce some that are near our ideal. This normal variation gives opportunity for selection and improvement. Heredity here plays a very important part in animal breeding. We work on the theory that, "like begets like," in breeding operations, always selecting parents with as many desirable points and as few objectionable points as possible. We must do this if any improvement in the offspring is to be expected.

About the Breeding.

An animal is the sum product of all its ancestors. The two immediate parents contribute between them one-half the characteristics, the grandparents one-fourth, and so on. Every ancestor has some influence, but the influence after the sixth generation diminishes rapidly. It is those animals close up rather than far back that determine the character of the offspring. Consequently we must give closest attention to the more recent ancestors.

Every animal inherits all the character of its two parents, but a great majority of these characters never develop visibly in the animal, but lie undeveloped, and may be transmitted on to the next generation and appear as visible characters. This accounts for animals being totally different from their parents, but resembling remote ancestors.

We have seen from the law of heredity, that an animal is of very complex composition. Hence the uncertainty of breeding. All the influences of remote ancestors are striving for mastery, and we never know which will predominate in the offspring. As the result no two animals are alike, variability must be expected. But this variation is a source of great strength to the breeder. Without variation no improvement would be possible. The parents may be of average type and the offspring both above and below that average. Then the breeder's task is to select the animals above the average and breed from these. The whole keynote is selection, continuous selection, which is the most powerful means of improvement, and is the only means of permanent improvement under the breeder's direct control. But before selection could be carried on intelligently, an ideal type must be adopted. The selection of the sire we consider very important, as he is even more than half the herd. Having made our selections, and mated them the next question that confronts us is the feed-

ing and development; we must so feed as to develop to the fullest extent all of the breeding organs and be in the best possible condition to develop the unborn litter. And the first thing to remember is feeding for development that the rations must be so balanced as to meet all the requirements of growth and expenditure of energy by the hog. The most important constituent of the ration is protein, it must be supplied in some form to fully develop all of the organs of the body. There is no best ration, and what may be most economical this year may be most expensive next year.

A good ration consists of 10 parts corn and 1 part tankage, or 5 parts corn and 1 part oilmeal. Tankage containing about twice as much protein as oilmeal. The protein may be supplied from other feeds such as wheat bran, middlings, alfalfa, milk, or oat middlings. Rye middlings or chop should not be fed to breeding hogs. Any of these feeds properly balanced, with plenty of exercise, which by the way is very important, are essential to the making of breeding animals desirable producers. If they do not take exercise of their own accord, you must see that they get it. Young gilts will generally take exercise of their own accord, but aged sows in winter like to lay in the nest. If the herdsman does not get enough exercise he can drive these sows some every day, but if this should get too monotonous, have their sleeping apartments some distance from the feeding place, and they will travel back and forth several times a day, or you can scatter shelled corn or oats over the pasture and this will induce them to exercise. Exercise they must have to fully develop the litter of unborn pigs.

It is impossible to give in detail any system for all to follow, as no two breeders handle or feed alike, all follow methods which suit their own conveniences.

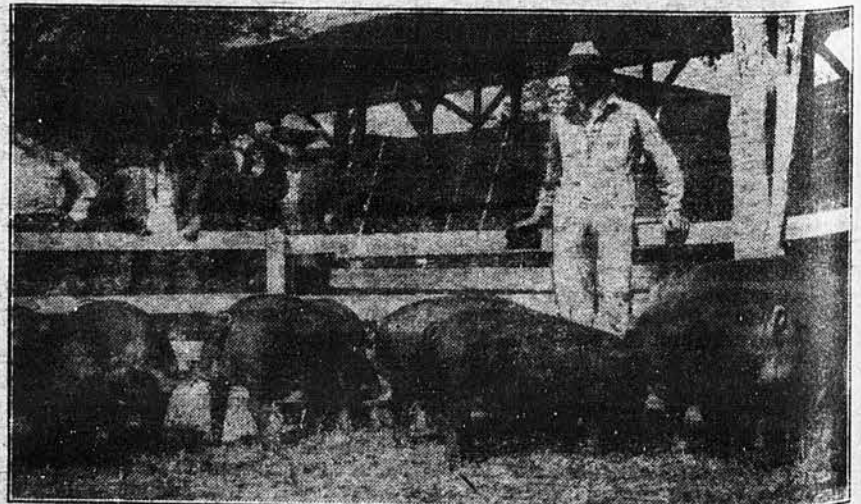
Balanced Feed Needed.

Developing hogs on corn and water is a thing of the past. We have learned by experience that a hog will not do his best unless he has put before him a balanced ration to fully develop all parts of the body equally. No doubt some of you have heard the remark by farmers, "My hogs are not any more than paying for their feed." There are two things that may be wrong with this farmer, one is he may not be breeding a profitable type of market hog, or he may be following his great grandfather's "corn and water system." In this progressive age, we must be up to date. Systematize your breeding and feeding and breed a type that responds quickly to a balanced ration.

Farmers and stockmen generally are rapidly coming to a thorough understanding of the true value of the size and quality to be secured in a short time thru the use of purebred sires. A quicker method of arriving at the desired end is the purchase of a few purebred sows or gilts from which to raise breeding stock to be retained on the farm. There is no class of livestock kept on the farm that will equal the hog in clear profit.

Forty-nine per cent of the meat prod-

(Continued on Page 37.)



A Winning Litter of Eleven Duroc Pigs. It Took Brains and Industry To Make Them Win.

Consider the Corn Yields

Good Seedbeds are of Much Value in Kansas

BY J. G. MOSIER

THIS YEAR with the great demand and high price for corn, the care of the crop should be better than has ever been before. The seedbed should be one of the most desirable possible for the crop. The fall plowing should be worked early, deep, and several times before the corn is planted. Land to be spring plowed, especially stalk ground, should be disked early and as early as possible. As the plowing is done, the cultivation should be kept in mind, and all organic material turned under so completely and to such a depth that it will not interfere in the subsequent cultivation. The working of the spring plowed land with harrow and disk is of the utmost importance. Remember that corn does best on a firm, mellow seedbed. The cultivation should be of such a character as to provide the best surroundings for the growing of the corn without injuring it in the least.

Weeds Cause Most Injury.

The most serious thing in the growing of a corn crop is the injury by weeds. Millions of dollars are lost in Kansas every year by the growth of weeds in the corn fields, and a form of cultivation that does not kill the weeds is not well adapted to a farm that will grow corn, as all of our farms do.

At the University of Illinois, plots that were well prepared for corn, but in which the weeds were allowed to grow, produced 7.3 bushels an acre as an 8-year average, while plots just by the side with the ground prepared and the corn planted in the same way, but the weeds kept down by scraping with a hoe, produced 45.9 bushels or an increase of 38.6 bushels of corn an acre. This shows the necessity of keeping the weeds down. The best yield that was obtained where the weeds were allowed to grow was 16 bushels an acre, while the largest yield where the weeds were kept down without producing a mulch was 75.5 bushels. Killing weeds is the primary object of cultivation in the corn fields of the Middle West.

Do Not Injure Roots.

Another very important principle to be followed in the cultivation of corn is that no injury be done to corn roots. Approximately three-fourths of the roots of the corn plant develop in the plowed soil. Many of these are not more than 1 inch deep. They usually start from the stalk at a little less than 2 inches depth and gradually go deeper as the distance from the hill increases. The depth of planting makes little difference in this. It would be well for a farmer in his cultivation to examine closely the work that is being done with his cultivator and see whether it is injuring corn roots. If it is, the thing to do is to cultivate shallower, and if the cultivator cannot be adjusted so no injury will be done to the corn roots, then it will be economy to throw this to one side and get one that can be so adjusted.

Any cultivator that runs more than 2 inches in depth is bound to injure the roots and lessen the yield of corn if used after the first cultivation. Cultivation is frequently done from 3 to 4 inches in depth, and there is no doubt that for the average season the yield will be decreased materially by this method. A 5-year average at the

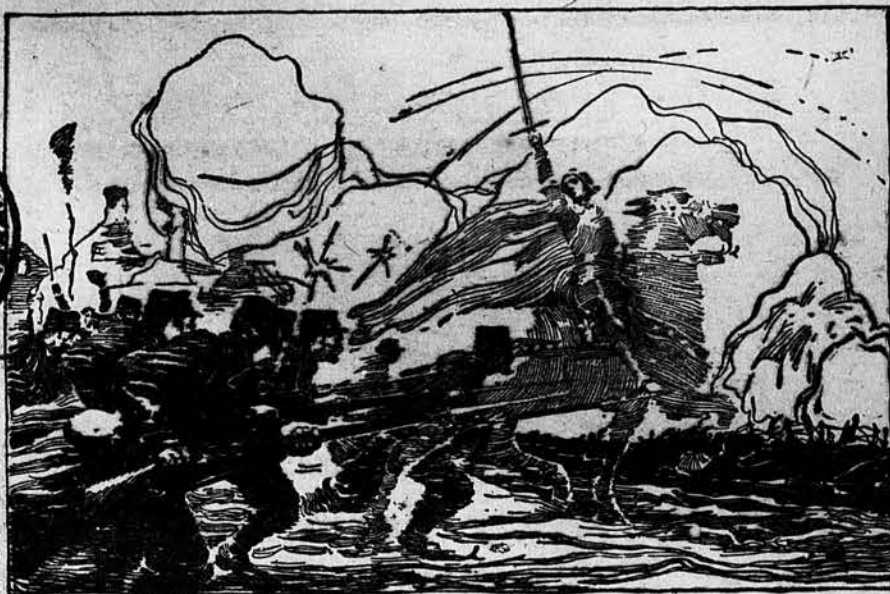
University of Illinois shows that shallow cultivation gave 70.3 bushels an acre, while deep cultivation the same number of times gave 86.7 bushels, or 3.6 bushels in favor of shallow cultivation.

Another principle to be followed in the cultivation of corn is to cultivate no oftener than is necessary to keep down the weeds, and this is of special importance during dry seasons. Experiments show that for the dry seasons of 1911, 1913, and 1914, the uncultivated plots produced an average of 41.3 bushels, while the cultivated ones produced 32.3 bushels, or a difference of 9 bushels in favor of no cultivation. The cultivation was done to a depth of about 3 inches, or the usual depth with the three-shovel cultivator. The ground had been plowed 6 inches deep. In laying corn by, the twisting of the leaves frequently follows the cultivator.

The stirred soil during these dry seasons was so loose and dry that the corn obtained no plant food from it. Roots did not penetrate it. It was worthless so far as its plant food went in feeding the corn. Its only value was in the conservation of moisture, and when corn gets large enough to shade the ground, and the roots become distributed thruout the soil, there is very little loss of moisture by evaporation from the surface of the soil in the corn field. On the uncultivated plots, the roots could use the plant food in the entire plowed soil, and this is the source of much the larger part of the food for the crop. Half the plowed soil in the cultivated plots was of very little or no use to the crop. Cultivation can be done deeper and oftener in wet seasons than in dry ones without great injury to the crop.

Some Essentials.

1. A deep, firm, well-prepared seedbed is essential for aeration, proper root development, warmth, formation of plant food, and the conservation of moisture.
2. Two or three crops of young weeds may be destroyed by cultivation previously to planting and at the same time moisture is conserved and plant food developed for the use of the crop.
3. The killing of weeds is the most important factor in the cultivation of corn on silt loams, loams, and sandy loams.
4. The first cultivation may be deeper than the others altho this is not necessary if the soil is in good physical condition.
5. About three-fourths of the corn roots develop in the plowed soil, and deep cultivation results in injury to these.
6. In dry weather, cultivation should be done shallower than in wet weather. It should not be done to a greater depth than 2 inches at any time after the first cultivation. If weeds get a start, it may then be a choice between the injury to the crop by weeds, or by root pruning with the deeper cultivation necessary for killing weeds.
7. The best type of cultivation is that which is deep enough to kill the weeds, but sufficiently shallow so that root pruning is reduced to a minimum.
8. Cultivation is more important on heavy soils, such as clays and clay loams, than on the lighter soils.



The Miracle of the Marne

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The Marne was a demonstration of the power of patriotism with its back against the wall. The same sacrifice of self, the same love of country and unity of purpose that inspired the French people must inspire us, and we must win the war.

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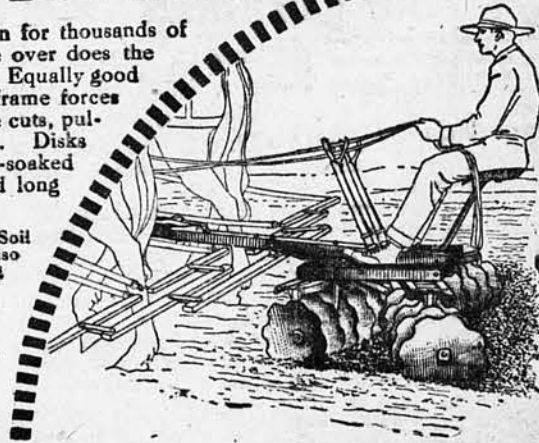
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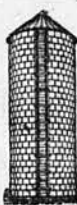
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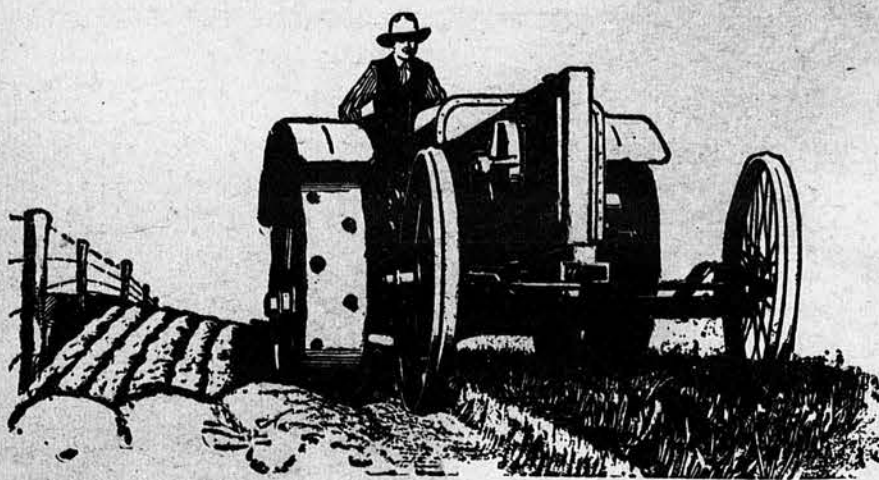
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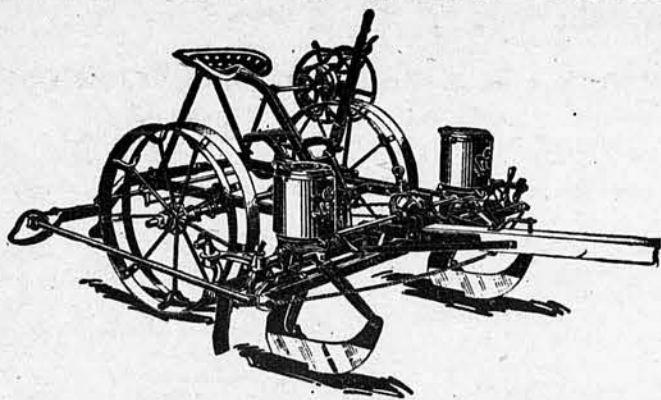
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25



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These machines plant corn accurately, whether used with edge drop, flat drop, or full hill drop plates; whether the corn is checked or drilled. The drop clutch can be changed, while the planter is working, to drop 2, 3, or 4 kernels to a hill. The tongue is easily adjustable to the height of the horses. A handy foot drop lever makes head-row planting easy.

When you look over the International or C. B. & Q. planter, don't miss the automatic marker, a handy feature that saves a lot of work and time. There are fertilizer attachments if you want them, combination pea and corn-planting hoppers, open wheels or closed—your planter will be equipped just as you want it. You can plant rows 28 to 48 inches wide by 2-inch adjustments, with four distances between hills.

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Let's Put 'Er Over the Fence

There's Still Time to Hit a Home Run in the Club Game

BY JOHN F. CASE, Contest Manager

WOULD'N'T it be fine if you could earn \$100 for one day's work? Not many of us have the ability or the opportunity to do that, but to earn \$100 one must first have the opportunity to work for it. This is the last call for membership applications in the Capper Pig Club. The coupon will not be printed in the Farmers Mail and Breeze again. The boy who signs the application right now and hurries it in to me still may have an opportunity to earn \$100 this year.



Lester Stout

Last year the average earnings for the entire club were more than \$100. I believe we will equal that amount this year. One thing sure, if you don't get into the game you can't win. In many counties the membership still is incomplete. Sign the coupon and send it to me without a minute's delay. If your county membership is complete you will not need to hustle recommendations. If there still is a chance I will send the recommendation blank back to you in the very first mail.

County leaders, and some who would like to be leaders, have been hustling like the mischief to complete the membership where only two or three boys are needed. I do not think there is anything unfair or immodest about a boy writing and telling me that he would like to be county leader and that if chosen he will go the limit in making his county a topnotcher. A few boys have done that. Nor am I displeased when some boy writes and tells me that he thinks a club friend would be the proper person to appoint. We made few mistakes in selecting county leaders last year and we expect to make few this year, but I want to secure every possible bit of information about boys who have the quality of leadership. Training boys for leadership is, after all, the biggest thing we are accomplishing in this club work. The boy who discovers that he has the ability to lead never will be an "average" boy again, nor will the boys who associate with him and get into the real spirit of county pride ever be "average" boys. In fact we have mighty few "average" boys in the Capper Pig Club. The "average" boy hasn't pep enough to get into the game.

To prove that pep, business ability, and the ability to produce pork make a good combination, county leaders won a number of the prizes last year. One of the live wires of the club was Lester Stout of Cottonwood Falls, Chase county. Lester had the winning spirit. He was up on his toes thruout the game and didn't sulk when he found that some of his competitors were a few points ahead. Every boy in Chase county turned in a report and if all of them had shown as much pep as Lester did there might have been a different story about the pep trophy

award. Lester was one of the top pork producers. With nine Poland pigs entered he produced 2,165 pounds of pork and showed a net profit of \$248. This profit estimate made in December undoubtedly was low. In a letter received this week Lester tells me that he sold every one of his pigs for breeding purposes and could have sold many more. His excellent record proves that the boys who enter gilts have an opportunity to win. He should do even better this year with a tried sow entered. Lester won one of the 15 prizes offered, which was better than about 400 other boys could do.

Second in pork production and profit came Christopher Williams. Christopher had a Duroc sow and with seven pigs entered produced 1,420 pounds of pork, making a net profit of \$203. Richard White, 1916 and 1917 member, who also is president of the Duroc Breed Club, had eight pigs in the contest. He produced 1,290 pounds of pork and showed a net profit of \$108. Glen Hunter had a Poland China sow. With six pigs he produced 780 pounds of pork and his net profit was \$127. Edward Baker had a Poland China, and altho he had eight pigs entered he produced but 670 pounds of pork. His profit record was \$63. I can hardly understand why with these records but three boys have lined up for work in Chase county. Lester and Glen renewed membership and Dwight Weaver of Elmdale has joined. There is no more enthusiastic member of the Capper Pig Club than Lester Stout. Here is his prize winning story:

"I bought my sow of W. A. McIntosh of Courtland, Kan., on January 1, 1917," wrote Lester, "but did not receive her until February 3. She was only a gilt. She weighed 210 pounds when I began keeping record of her feed February 26.

"Her feed consisted of oats, corn, shorts and milk, tankage and dry alfalfa. I fed her some stock powder once a week. I kept her sleeping quarters clean all the time.

"As I had record of her she was to farrow May 2, but she did not farrow until May 6. When I came home from Sunday school that day I went out to her pen and found 11 fine pigs. I certainly was a happy boy. The next day she laid on two of them, so I only saved nine. As she was only a gilt I thought she would make as much of the nine as if she had saved them all. I didn't feed her anything for the first two or three days, but gave her plenty of fresh water. For the first seven days I only fed her half feed and then increased it until I was feeding her what she would clean up greedily. The pigs grew as well as anyone could wish. As soon as the pigs were able to run around, I turned the sow and pigs on green alfalfa pasture. When the pigs got big enough to eat with their mother, I made them a trough and fed them where their mother could not get to it. I fed them ground corn at first, but when they got big enough to grind it well enough for themselves, I fed them shelled corn, shorts, skinned

(Continued on Page 40.)

THE CAPPER PIG CLUB

John F. Case, Contest Manager, Capper Building, Topeka, Kan.

I hereby make application for selection as one of the ten representatives for county in the Capper Pig Club Contest. I will try to secure the required recommendations and if chosen as a representative of my county I will carefully follow all instructions concerning the club work and will comply with the contest rules. I promise to read articles concerning pig club work in the Farmers Mail and Breeze and will make every possible effort to acquire information concerning the breeding, care and feeding of swine.

Signed Age

Approved Parent or Guardian

Postoffice Date

Age Limit 12 to 18

What Food Control Means

The Administration Has Certain Definite Duties

BY HERBERT HOOVER

THERE APPEARS to be a good deal of misinformation circulated amongst the agricultural community as to the policy and scope of the Food Administration with relation to price fixing. I wish to say at once, and emphatically, that the Food Administration is not a price-fixing body except with regard to certain commodities which are today dominated by wholly abnormal overseas commercial relations, and the surrounding factors with regard to which are such as to project great dangers both against the farming community and at the same time the consuming community.

The two commodities under regulation are wheat and sugar. With the further exception of cases in which it has intervened purely as a friendly intermediary between organized producers and consumers—as in city milk—the Executive Department of the government has no authority and no desire to fix the prices of products of agriculture.

It seems necessary and desirable to re-state the reasons already referred to by the President which render it necessary and possible to undertake the control of the marketing of these two commodities. The economic forces arising out of the war, which have necessitated this action, are in the main as follows:

1. All of the overseas shipping in the world has been placed in government control and the volume of this shipping is much reduced. As a consequence there is no longer any free play in commercial overseas traffic as the governments involved must designate what tonnage is to be assigned to each commodity and each class of traffic.

2. Inasmuch as normal commercial overseas traffic has broken down, it was necessary for the Allied governments in Europe to set up single agencies for the purchase of the whole of their food supplies from abroad. Of American wheat their purchases are of sufficient volume to control the price—and this is the only agricultural commodity where this maintains.

3. In the face of a necessary duty to reduce our consumption of food—so badly needed by the allies—it has been absolutely necessary to arrive at a division of these two commodities in the common interest of the war, and to control the reduced supplies internally, in order that all persons may be treated alike—rich and poor—and this implies a control of distribution and price.

Control Measures

As stated, practically the only commodities in which these new economic forces dangerously involve the United States are wheat and sugar. All control measures are the less of evils. In wheat we were faced with a single agency whose proportionate purchases to the total were such as to dominate the price. Any relationship with this agency by our officials in limiting their operations thus becomes absolutely price fixing, and it becomes at once a question as to whether it should be done openly and frankly with our producing community, or done secretly, at the will of government officials.

Furthermore, in the ordinary course of our wheat marketing, the wheat goes to the markets during the first four months of the harvest year and during this period, were no control established with the allies and neutrals, it would be entirely possible for them to export from the United States such a portion of our wheat supplies as to leave our population short of bread. It has therefore been necessary, in the interest of the American consumer, that the government should intervene to protect his supplies. Again, in the face of this abnormal situation, the normal wheat marketing machinery of the country was completely paralyzed.

To have attempted the normal course of marketing thru the boards of trade and exchanges, by which the buyers of wheat protect their operations by sales of futures, involved a dangerous series of speculations, nor did the exchanges themselves wish to be the centers

around which such speculations should take place. Every action of the Allied buyer, every rumor of peace and thereby the liberation of the large wheat supplies in Australia, every monthly shipment of wheat abroad in the depletion of national supplies, would have been the center of speculation and the cause of violent fluctuations in the exchanges, of the same character that occurred during the last five months of the 1916 harvest year, when, altho the farmer had marketed his wheat at an average of \$1.44 a bushel, the price, due to these very causes, at one time rose to more than \$3 a bushel, and flour to more than \$17 a barrel.

In these circumstances an independent commission was appointed by the President, upon which the farming community was represented by six members out of 11, and this commission unanimously agreed upon the price of \$2.20 a bushel for No. 1 Northern wheat, based on Chicago, as a market center, and in coming to its conclusions this committee considered the necessity of giving to the farmer a price not only covering his cost and normal profit but also a price that would stimulate and assure future production. That their judgment has proved correct is evidenced by the fact that 42 million acres of winter wheat have been seeded, being an increase of about 2 million acres over any acreage hitherto known in our history and some 7 million acres over the pre-war average.

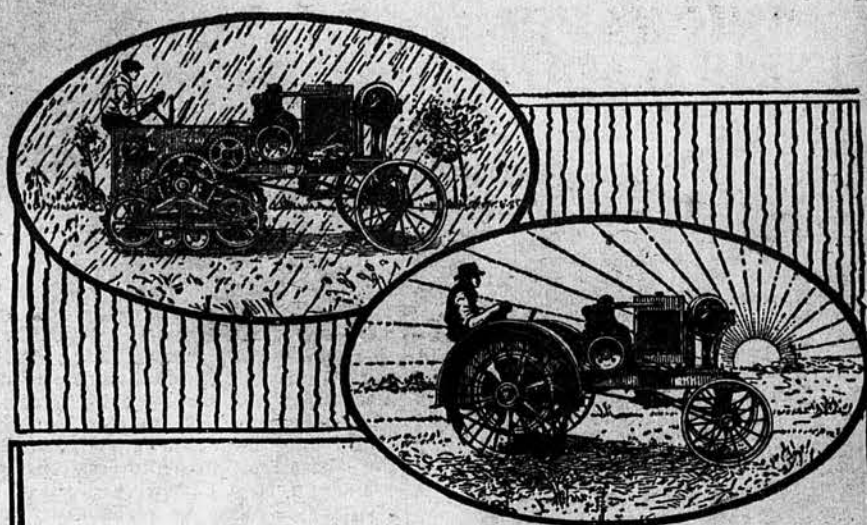
Basic Prices

Having established the basic price of this commodity, the Food Administration has followed it thru the manufacturing and distributing trades with limitations as to the profits to be earned in distribution and has thereby brought this prime commodity to the door of the consumer at the least possible expense and at a margin between producer and consumer less than normal. The same situation confronts the American farmer and the American consumer in wheat for the next harvest year.

In the matter of sugar, the same economic forces are in action to displace normal traffic, except that in this case the American people are purchasers abroad of the large portion of their supplies. In addition to the necessity for governmental action to secure a fair division of the available sugar to the American people, it has been common business prudence to join with the Allied governments in a definite contract with the Cuban authorities as to price, rather than leave it to the fluctuations which would arise from short supplies and irregular shipping facilities. Where the various arrangements made have involved the interests of the American sugar producer they have been made in consultation with him and with his co-operation, in order that he might be protected in his industry. In this case, as with wheat, the distributing trades have been placed under regulation as to the profits in distribution of a stabilized commodity and the consumer protected as to price.

The only other situation where the Food Administration has interested itself in the prices of agricultural products has been in instances such as milk for the cities, where the producer was himself organized and was in sharp conflict with the consumer, and where these conflicts promised to work hardship on both producer and consumer. In such cases the Food Administration has acted merely as a friendly agent in securing a settlement. In all such cases the producer must necessarily be a contracting party and therefore must be satisfied with the arrangements made, and no such negotiations have been undertaken by the Food Administration except at the request of the producers.

A similar case lies in the purchase of pork products by the Allied governments, which while not sufficiently large to control the market, yet could affect the price. In this instance, representative bodies of the producers were called together and upon their



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(Continued on Page 40.)

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To Grow More Good Berries

Careful Cultivation Will Pay Well This Year

BY JOSEPH OSKAMP

MANY GROWERS of blackberries and raspberries have become discouraged in the last few years because these crops no longer do well and have "run out," as the expression goes, in their localities. This has indeed happened, but it is not to be blamed to the "running out" of the variety but to other perfectly definite, altho not always obvious causes. The prevalence of diseases on these fruits has increased greatly, due to the dissemination of infected nursery stock and to a general neglect of the plantations, and is responsible in a large measure for reduced yields. Lack of good tillage, poor cultural methods, and failure to use manure or other fertilizers have all had their direct effect on reducing yields as well as their indirect effect in encouraging a development of diseases.

The most careful attention should be given to the purchase of nursery stock. Buying from only the most reliable plant men who have a reputation to sustain is a safeguard. Young plants should not be taken from an old plantation unless one is satisfied that the stock is not diseased. Spraying will help to keep the plants healthy but is a preventive measure rather than a specific remedy. Cutting out all the old canes as soon as the crop is harvested and burning them is a simple but important control measure.

It also seems advisable to rotate the patch more frequently than has heretofore been practiced. Aim to give the plants excellent care so they may attain maximum production early, and discard them before they lose vitality and become diseased, start the new patch always on a fresh piece of land.

Brambles are moisture and humus loving plants. They naturally thrive in moist locations where leaf mold is abundant, as in old fence corners and clearings in the woods. They may be grown, however, on almost any well drained soil, but the fruit does not attain its maximum size and perfection except on a deep, rich loam. A clay subsoil is an advantage on account of its moisture holding capacity. As a general rule, the heavier types of soil are better adapted to blackberries and the lighter loams to raspberries.

The soil can be improved greatly by liberal applications of barnyard manure, which is preferable to using commercial fertilizers exclusively. In blackberry and raspberry culture, moisture is more frequently the limiting factor than plant food; hence it becomes highly important to improve the moisture condition of the soil. This is exactly what manure does and commercial fertilizers do not do. Manure adds humus, which greatly increases the water holding capacity of the soil. Manure may be turned under when preparing the soil for planting or it may be applied in the fall or winter as a mulch. It can be used freely; there is little danger of manuring these fruits too heavily.

Plow the land deeply and work the soil down into good condition before planting. Plants may be set 3 or 4 feet apart in rows 7 or 8 feet apart. Planting may be done in any convenient manner, but in field culture the plants generally are set in furrows, which makes the work much more rapid. The important thing is to set the crowns slightly below the surface and firm the earth about the plant roots, leaving the plants set tight in the soil. Spring planting generally is to be preferred, but if fall planting is done the plants should be mulched with straw or other material.

Lack of cultivation is a common cause of failure with berries in Kansas. Dry weather about the time of ripening, especially of blackberries, is not unusual in this state. Without proper cultivation the berries soon go to "nubbins" and become dry and tasteless.

Earliness of cultivation is important. If plowing is delayed until late, many of the new feeding roots which already have developed will be cut off. This

is a distinct loss to the plants at this time. Plow and prepare the land as early in the spring as it is fit to work; then keep a dust mulch on the surface by frequent cultivation. A small, berry cultivator is suitable for this purpose. Deep tillage is not desired; it should be just deep enough to break the surface crust. Remember that frequent cultivation will help to secure large, perfect berries throughout the season.

A cover crop of some sort should be sown in late summer. Probably millet for this purpose is as good as anything. It supplies one of the best covers of the non-hardy crops and leaves the soil in particularly fine condition for spring work. Rye is an excellent winter surviving crop but more difficulty is experienced in turning it under and getting the ground in condition afterwards.

Where straw can be procured cheaply, mulching may take the place of cultivation. A deep mulch will conserve the soil moisture quite as effectively as cultivation and very satisfactory crops will result. The soil should never lie bare over winter, but either a mulch or cover crop may give protection.

The training of the canes is a matter that should suit the convenience of the individual grower. There are two considerations, however, which should not be lost sight of. The plantation should be confined either to hills or narrow rows. All suckers or new plants which arise outside of these confines should be destroyed by hoe or cultivator, for without such attention the patch will soon become a thicket. When the fruit has been harvested, the old canes should be cut at once and burned. This not only gives the younger canes a better opportunity to develop but also greatly reduces the chance of infecting the new growth with any diseases which the old canes may have.

When the plants are grown without artificial support it is helpful to pinch off the tips of the young shoots in the summer when they have reached a height of 2 feet. This retards the immediate elongation of the cane and causes lateral shoots to push out, making the bush lower and more nearly self-supporting when laden with fruit. If the shoots are not pinched when young, it had better not be done at all. Late cutting often results in weak, spindling laterals.

Providing some means of support for the canes probably pays in the long run in convenience in cultivation and picking and in less loss of fruit. The canes may be tied to a single wire, running the length of the row and about 3½ or 4 feet high; or two wires one at 3 feet and one at 5 feet, make a satisfactory trellis.

The red raspberry and the blackberry may be propagated from suckers, as the 1-year-old root sprouts can be readily transplanted. These fruits also may be propagated by root cuttings made in the fall and stored in sand in the cellar or buried outside in a well drained spot. Roots about the size of a lead pencil are dug and cut in 3 or 4 inch lengths; in the spring these are planted in nursery rows.

The black raspberry is propagated from stolons or rooted cane tips. In late summer the long canes trailing upon the ground take root and form new plants. In the spring these can be severed from the parent plant and transplanted to new locations.

It is seldom that raspberries or blackberries are bothered by leaf-eating insects. In case they appear, however, they may be poisoned by spraying the bushes with arsenate of lead, using 2 pounds of paste or 1 pound of powder to 50 gallons of water.

There are two borers which attack raspberries and blackberries. The crown borer generally is found working in the roots or near the ground, while the cane borer works in the young canes early in the summer. The moth laying the egg girdles the cane near the top, causing it to wilt and drop off above the girdle. The only remedy for the crown borer is to ex-

(Continued on Page 40.)

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Preparing for Baby Chicks

Capper Poultry Club Girls are Receiving Orders

BY BERTHA G. SCHMIDT, Secretary

GATHERING eggs from their contest flocks is filling Capper Poultry club girls with delight. Soon they will be overjoyed with their broods of baby chicks. "An order for 100 chicks at \$15 has already been given me," wrote Velma Bilhimer, that plucky new member in Hodgeman county about whom I've told you so much recently. "You see I am commencing early," she continued. "I put an ad in the paper that I would have little chicks to sell and in a few days I received the order."

Then there's Letha Emery down in Crawford county who received more than 60 eggs the first two weeks she had her pullets penned and who is saving eggs from her contest flock to set in an incubator.

It isn't too early to be planning for your baby chickens. Remember that all contest chicks must be toemarked so that you can tell them from the farm flock. To toemark the chicks ob-

slip the window sash in position, regulating the air space according to weather conditions. Regulation is made by raising the sash or lowering it, using your own judgment.

"These boxes can be left outdoors in the coldest weather, and the chicks will grow strong. This is not a theoretical dream but a successful method of raising chickens.

"The feeding of baby chicks is often a problem. To make strong healthy chicks we feed a baked ration consisting of equal parts of bran and corn meal, a little soda, milk and eggs which test infertile at first testing. We bake this for several hours in a slow oven and feed it to the chicks three times a day, giving them all they will eat at a feeding. With plenty of fresh water and exercise the chicks will grow healthy and strong in a short time.

"After the hen leaves her brood which is usually in from six to eight weeks, we feed a commercial chicken feed in straw litters and let the chicks scratch for it."

The picture used in this week's issue shows Gwendolyn White, a new member of the Shawnee county club, and her chickens. Gwendolyn is eager to see her county push ahead and her father is helping, too.

"This is how I happened to choose Rhode Island Reds for my contest chickens," wrote Madge Slater of Lyon county, president of the Rhode Island Breed club. "Two years ago last fall I entered my canned fruit and jelly in the county contest held in Lyon county and received first prize which entitled me to a trip to Manhattan for a week with all my expenses paid. We went during Farm and Home Week. I took some of my fruit and jelly and won first on my jelly and second on my fruit, making \$7 I earned there besides my trip. I was undecided what to do with my money. I had always liked poultry and heard the Rhode Island Reds were good chickens and good layers so I bought nine hens and a rooster. I raised 19 of my contest chickens—17 pullets and two cockerels."

Extracts from Letters

Two of my cockerels brought \$2.50 each and one of them \$3. I have disposed of all of my surplus stock now.—Naoma Moore, Stafford county.

As I read that you want pictures of the new members, I am going to have someone take one of me with my camera. I am trying to get some new members for my county.—Kathryn Vandever, Clark county.

My nine cockerels brought \$24. I think that is doing well. I hope we get some more girls in the poultry club in this county.—Mary Normile, Doniphan county.

I learn to appreciate the Capper Poultry club more and more every day. Did we ever get so many eggs before during the winter? I should say not. Why? Because I take an interest in chickens. Any amount of effort is repaid in gathering the eggs. It is so much fun to get lots of eggs.—Mabel Peterson, leader of McPherson county.

Papa has finished my chicken house and I intend to pen my chickens soon.—Laree Rolph, new member of Cloud county.

As my pullets start laying I put leg bands on them and put the number of the bands in my book. In that way I can tell which are the best layers.—Ollie Osborn, leader of Johnson county.

Evelyn Starkey, my nearest girl neighbor, whom I asked to be a member of the Capper Poultry Club, has decided to join. I am going to try to get some others because I want this county to have a complete membership.—Marie Houghton, Greenwood county.

I am still trying to get new members. Dorothy Myers has promised to join and I hope to send another name in before long.—Bessie Sell, leader of Wilson county.

I am sending my application and hope it will reach you in time so I can be a poultry club member. I will have as much pep and energy as possible and will do all I can to make Johnson county one of the leading counties of the state. Two poultry club girls live just a mile from me and the county leader, Ollie Osborn, lives about three miles from my home. We will all work and boost together.—Myrtle Buckingham, Johnson county.

Papa has fixed my little hen house and he made a park for the chickens. He has also put the nests in. I hope the pullets will lay soon.—Alice Presnall, Sheridan county.

"Well, I suppose you want to borrow my 'Better Farming' again."



"Of course I don't mind lending it to you, Tom, but why don't you get one for yourself?"

"It isn't safe to be without this book."

"I'll be in a hole 'til you bring it back. And, Tom, if you don't soon get your own copy I'm going to write for it for you myself."

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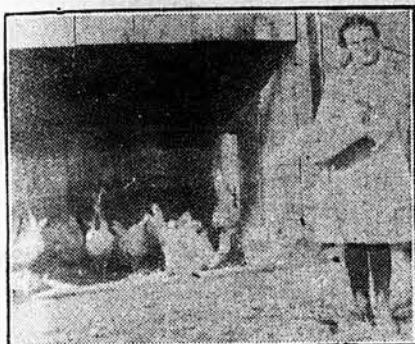
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A Shawnee Booster.

tain a toemark from a poultry supply house or mail order house. They can be purchased for 25 cents. Puncture the web of the chick's foot. To do this is not cruel for it does not give the chick any more pain than pricking the outer skin of your finger would give you. Of course if you wish, you may use leg bands for markers, but this will give you more trouble as the bands must be changed as the chicks grow or they will cut their legs.

When I attended a meeting of the Kansas Woman's Farm and Garden Association in Topeka last week I wished that every Capper Poultry club member could have been there. The place that chickens are going to take in increasing the food supply of the United States was brought out emphatically. One of the speakers, Mrs. Charles Luengene of Topeka, a successful raiser of poultry, gave many helpful points about the care of baby chicks. All of the chickens on her farm, Mrs. Luengene said, are hen hatched. Until the hen is ready to leave her brood Mrs. Luengene uses what she considers to be the most healthful and simplified method of caring for them—a box with a glass front.

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Bertha G. Schmidt, Secretary, Capper Building, Topeka, Kan.

I hereby make application for selection as one of the ten representatives for _____ county in the Capper Poultry Club Contest. I will try to secure the required recommendations and if chosen as a representative of my county I will carefully follow all instructions concerning the club work and will comply with the contest rules. I promise to read articles concerning poultry club work in the Farmers Mail and Breeze and will make every possible effort to acquire information about breeding, care and feeding of poultry.

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Approved _____ Mother or Guardian

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Money from Dairying

Keep the Dairy Cows

BY FRANK M. CHASE

Dairymen have a more serious problem in producing dairy products at a profit today than ever before. The doubling of dairy feed prices is accompanied by no similar increase in the prices of dairy products. "During such a crisis as the present," explains Prof. O. E. Reed of the Kansas State Agricultural college, "milk, butter, and other dairy products have always been the last to rise in price. This is due to the fact that these products are perishable and cannot be stored for any length of time. When dairy products do increase, however, they are the last products to be reduced in price."

Disposal of the dairy herds at this time would afford but temporary relief. Prices of dairy products are certain to undergo readjustment, and when they again hold a relationship to the cost of production that leaves room for fair profits many dairymen will wish to re-establish their herds. Very likely it will be more costly and difficult to obtain good breeding stock than now. The logical thing for the dairyman to do is to hold on to his cows, as this will be cheaper than restocking later, after sacrificing perhaps years of effort in grading up a herd. The country, moreover, must have dairy products in greater abundance than ever. In the long run it will pay, both in dollars and in patriotism, to retain the dairy cows now on the farms.

Until the readjustment in prices of dairy products comes most dairymen will find it difficult to bring their herds thru without financial loss. They can do so only by a close study of their business conditions and by putting their operations on a basis as highly efficient as possible.

It will pay to give the matter of feeding particularly close attention. Nutritive values should be considered carefully that buyers may obtain the most value for their money. Feeds are too costly to waste part of the ration because the rest of it does not harmonize with the first part. No farmer wishes to waste costly protein because the carbohydrate content of the ration is insufficient to balance the nitrogenous content; or more likely, waste carbohydrates because of an insufficiency of protein.

For thousands of dairymen feeding for the maximum production will be impossible. Their problem will be to feed for the largest return for the feed consumed by their animals. Except in feeding for high records this is the better plan anyway. It is just one more of the improvements in farm methods being brought by the war which it will be profitable to keep after the guns have ceased firing.

Homegrown feeds, generally speaking, will admit of the most profit, as these cost the dairymen less than those purchased at the feed store. Dairymen hardly need the suggestion that it is to the interest of their pocketbooks to use the feed produced on their own farms as extensively as possible. Those who have

shaped their farming plans wisely have on hand, except in unusual cases, practically enough such feeds to carry their herds thru the winter. The man who has plenty of corn silage and alfalfa, for instance, can afford to be much less concerned over soaring feed prices than his neighbor having neither of these cattle-feeding standbys. Fed alone on these two sterling feeds dairy cows cannot only be maintained thru the winter, but also may yield profitable quantities of milk and butterfat. Cows fed on such a ration doubtless would not yield to the maximum of their ability, but for an average herd, in the hands of an average feeder, we would hesitate before naming another ration that would result in a more profitable production for the cost of the feed given.

A cow that cannot give a profitable account for her feed and care in times of peace certainly should not be tolerated now. Stall-room for her is a break in our line of food preparedness, as well as a source of direct financial loss. By all means get rid of the boarder cows this winter. If they ate their heads off before the war, as has been commonly said, they will consume themselves entirely under present conditions. Their meat value is now closer to their dairy value—in many cases being higher than ever before. Never has a better time appeared for dairymen to exchange unprofitable, for well-bred dairy animals.

Dairy Profits Still Good

Our small dairy herd consists of nine high grade Shorthorn cows. Four of them have their first calves. These cows get about a gallon of crushed corn and cob twice a day, with corn fodder in the morning and alfalfa hay at night. I consider crushed corn and cob meal a fine feed as there is very little waste when fed this way. Feed is too high to waste now. On any farm with 10 cows enough will soon be saved on the feed bill to pay for a grinder.

Our cream checks from these cows give us an income the year around and besides we have all the milk and butter we care to use. But the cream check is only part of the returns. There are the calves, which grow into money rapidly if cared for right. The separated milk makes a fine feed for the pigs, and then there is the manure with which the dairy farmer can build up his land.

If a man is so situated that he can have two pastures for the cows, one of wild and the other of tame grass, he will find this a big advantage thru the summer. The kind of tame grass to grow depends on the locality. With the two pastures the cows may be changed from one to the other, thus supplying good pasture most of the summer. The man who has the help and the cows, and the grit to stay with the dairy business, is the one who will make the most from his farm, size considered, one year with another.

Eat no wheat on Wednesday.



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Facts About the Farm Dairy

Figures Prove Dairymen Aren't Getting Rich

BY C. E. DRIVER

THE ADVICE to eat other cereals than wheat and other fats than butterfat should be heeded by those who are grown up strong and vigorous. But if the children of the country are to be strong, they must have milk. Therefore, the need of conservation of milk is more fundamental than that of wheat or fat," remarked a well known authority on the milk situation. And to mention results of an extensive experiment carried out at the Wisconsin Agricultural Experiment station it was learned that butterfat in milk contains the vital principles so essential to the

taxes and interest, real estate insurance, equipment, taxes, interest, bedding, ice, hauling milk, cattle died, repairs, feed grinding, cattle bought, rent, express, salt, stock food, fees and dues, power and fuel, equipment purchased, depreciation on buildings, depreciation on equipment and some miscellaneous costs. The credits consist of manure, cattle sold, milk and increase in inventory.

After compiling the figures obtained in this survey there was represented a total production in this vicinity of nearly 650,000 gallons of milk for the 31 days. After figuring up the total costs and allowing all credits, it was found that the milk in this locality cost the farmers an average of 29.1 cents a gallon or \$3.33 for 100 pounds. The average price on the St. Louis market was at that time \$3.20 for 100 pounds.

In New York, figures submitted showed that milk could not be produced in that section and sold at a profit for less than \$3.72 a hundredweight. In Pennsylvania, it was agreed that a fair price for the producer would be \$3.86 to \$4.06 a hundredweight, depending on the quality of milk delivered.

"Camouflage."

Now it may seem queer that many farmers in the dairy business are apparently making money while figures show that milk is selling below the cost of production. When I asked a well informed man from a dairy district in Illinois his opinion on this point he said, "I am convinced that a farmer appears to be making a good living at the business because he ordinarily has three or more children which together with himself and wife work in the production of milk. The apparent profit is not a gain from the product but simply wages for the family." If such dairy farmers would allow the wife and family a standard wage the tables would readily be changed.

Butterfat prices are lower proportionately than milk prices. The ratio between corn, oats, hay prices on one hand and butterfat on the other hand confront the dairyman as well as the nation with serious circumstances. Before the war, agricultural colleges and experiment stations saw the necessity of encouraging more dairying as a national necessity and to restore depleted soils. Now the importance is greater than ever because of the tempting prices for other farm products and the relative low price of milk.

Many of our leading dairies in the cities have been unfair with the dairy-



Profit When the Farm Boy Helps.

growth of the young mammal. No other fats of vegetable or animal origin would take the place of the butter fat.

It is a sad fact that few consumers as well as the producers realize the injury being done to the nation's milk supply by the recent controversies about the price paid the farmer and charged the consumer. Without attempting to

criticize the distributing plants with profiting and greed, I wish to submit a few figures in defense of the farmer. Numerous committees have been appointed by our large cities to investigate the cost of milk production. Farmers have willingly submitted their figures on costs, but in all cases these have varied according to localities and conditions. Much time, labor, money and delay could have been saved the cities had they taken advantage of figures provided by the farm management departments of our experiment stations. From farm departments they could have obtained results that were accurate and impartially compiled. Such departments have been figuring fat in costs for years. They have not drawn conclusions from a few individual farms but have taken figures from every type and every size of farm located in as many different localities. These figures have been accurately compiled and only correct averages used in figuring total costs.

Results of Surveys.

In one of the big producing communities near St. Louis, a survey was made by the Missouri Experiment station to determine the cost of milk in December, 1917. For the benefit of the consumer I shall mention a few of the items of costs that enter into the expense of milk production. First, we have the feed cost which includes corn, bran, cottonseed meal, linseed meal, gluten meal, hominy feed and various other concentrates. The roughage such as legume hay, non-legume hay, fodders, silage and pasture. Then come the various costs such as man labor, horse labor, interest on cattle, taxes and insurance on cattle, veterinary fees, breeding fees, real estate,

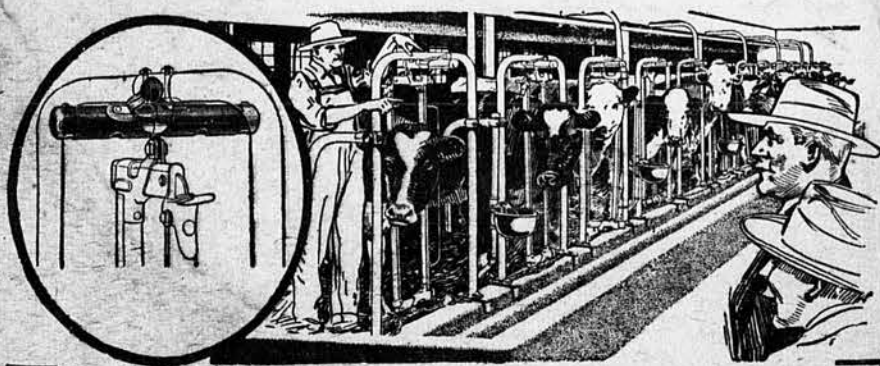
Equipment is Necessary and Expensive.

man on milk prices. They by no means did this intentionally, but merely because they have received their information from the wrong source. In many cases they have been the cause of much trouble by inflaming the hearts of the city poor concerning milk prices.

It is to be hoped that the government will soon have complete information regarding the milk situation, and help the patriotic, untiring dairyman to a promising future.

Calves Need Salt

By the time the dairy calf is old enough to eat roughage it should have either access to or small daily offerings of salt. Plenty of clean, fresh water, constantly available, is another simple and inexpensive requisite of good calf care that is too often neglected. Because a calf receives milk to drink is no reason why it does not require water. After the calf is 2 weeks old it needs water in small amounts at a time, tho often.



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Transplanting Garden Plants

Transplanting is the process of setting plants in their permanent location. If plants started under glass have been well hardened off, there should be no difficulty in transplanting; otherwise, they may die quickly. It is best to allow the soil in the beds to become fairly dry during the three or four days preceding transplanting. A few hours in advance of taking the plants up, they should be watered heavily in order to fill the tissues with water. The plants should be removed with as much soil clinging to the roots as possible. They should be protected from the sun while out of the ground, and care should be taken to get no mud on the leaves. Plants which do not retain much soil on the roots are sometimes "mudded" by immersing their roots in a thick mixture of mud and water.

The best time to transplant is on a cloudy day or in the evening, and before or after a rain. If after a rain, one should wait until the ground becomes mellow. For plants with considerable earth clinging to the roots, the holes are best made with the hand or a trowel. For large plants handled in pots, a spade may be best, and sometimes a furrow is opened with a plow. Small plants with little or no earth on the roots are often transplanted with a dibber. A hole is made in the ground, the plant is inserted to the proper depth, and covering is accomplished by inserting the dibber to one side of the first hole and pushing the intervening soil to the plant. The second hole is then filled with soil. A dibber works best when the surface has been compacted with the back of a spade, or a plank or a roller. Sweet potatoes, late cabbage, and small tomato plants are often planted with a spade. By this method one person plunges the spade into the ground, with the back of it outward and pulls it slightly toward him. A second person inserts a plant in the hole thus made, the spade is withdrawn and the first man finishes the process by pressing the earth to the plant with his foot.

No matter what the method used the secrets of success in transplanting are well-hardened plants, fine, moist soil, and thoro compacting, to exclude air from the roots. When the soil is dry it is well to cover the roots first with fine earth and then add sufficient water to moisten the soil thoroly. Do not puddle the soil. In all such cases, loose soil should be drawn over the top when the water has disappeared.

To Propagate the Raspberries

BY GEORGE M. DARROW.

Plants of the different varieties of raspberries may be secured from any reliable nursery and usually in starting a new plantation this is done. Many growers having an established plantation propagate their own stock.

To propagate new plants, the tips of the new canes of black raspberries and of the purple varieties now under cultivation should be buried in moist soil in late summer. By the following spring, the tips will have rooted and formed good plants. The cane then should be severed, leaving 4 to 8 inches of cane with the new plant which is to be set in the field.

If the tips of the canes of black and purple varieties are pinched off when they are about 12 inches high, the canes will branch freely and a large number of tips for burying will be secured. With many growers the first crop from both black and purple raspberry plantations is a crop of plants. In fact, a large part of the plants distributed by nurserymen are produced in this way by raspberry growers, who in turn sell them to nurserymen.

Red raspberries send up new canes from the base of the old canes, as do black and purple varieties. In addition, they send up suckers from underground roots at various distances from the crown of the parent plant. In starting a new plantation the strongest of these suckers are used. If a quantity of plants for setting is needed every year for several years, it may prove desirable to take up all plants in a given part of the field, both the old ones and the suckers. By the following year, a solid stand of plants suitable for setting will have sprung up from the pieces of roots left in the ground. When these are dug and the

ground is rich, another stand will grow for the following year. If this practice is followed, the fruiting plantation need not be disturbed by digging up sucker plants. Sometimes growers of the Marlboro and Ruby varieties wait until suckers appear in the spring and set these out. Such plants will be small, but should be very free from insects and diseases.

Raspberries may be propagated also by cuttings of the roots or canes if necessary. In ordinary practice, however, cuttings of either roots or canes are rarely used.

Sweet Clover for Hay

The first season's growth of Sweet clover usually does not get coarse and woody and therefore may be cut when it shows its maximum growth in the fall. In regions where more than one crop may be obtained the first season, the first crop should be cut when the plants have made about a 30-inch growth.

The proper time to cut the first crop the second season will vary considerably in different localities, depending very much upon the rainfall, the temperature, and the fertility of the soil. In no event should the plants be permitted to show flower buds or to become woody. In the semiarid sections of the country Sweet clover does not grow so rapidly as in more humid regions. Neither do the plants grow so rapidly on poor soils as upon fertile soils. In the drier sections the best results usually are obtained by cutting the first crop when the plants have made a growth of 24 to 30 inches. On fertile, well-limed soils in many sections of the country a very rapid growth is made in the spring, and often the plants will not show flower buds until they are about 5 feet high. On such soils it is essential that the first crop be cut when the plants have made no more growth than 30 to 32 inches if hay is desired which is not stemmy and if a second growth is to be expected.

It is not necessary to leave more than an ordinary stubble when cutting the Sweet clover hay crop in the fall of the year of seeding. A stubble 4 or 5 inches in height, however, will serve to hold drifting snow and undoubtedly will be of some help in protecting the plants from winter injury. While Sweet clover without question is more hardy than Red clover, usually more or less winterkilling occurs, and any protection which may be afforded during cold weather will be of considerable benefit.

While the first crop in the second year comes from the crown buds, the new branches which produce the second crop of the second year come from the buds formed in the axils of the leaves on the lower portions of the stalks which constitute the first crop. These branches usually start growth when the plants are about 24 inches high. In fields where the stand is heavy and where the lower portions of the plants are shaded densely, these shoots are soon killed from lack of necessary light. The branches which are first to appear and which are first to be killed are those close to the ground. It is therefore very important when cutting this crop to cut the plants high enough from the ground to leave on the stubble a sufficient number of buds and young branches to produce a second crop.

Grow Asparagus

Asparagus is one of the earliest and most wholesome vegetables and should be grown in every home garden where it can be produced successfully. As a canned product asparagus is one of the best, because it retains its flavor better than most other vegetables.

The growing of asparagus for market is a profitable industry when the crop is properly cared for and intelligently handled. The acreage grown for market might be enlarged considerably, as the demand for asparagus is increasing.

A well-established asparagus bed should produce profitable crops for 15 or 20 years, but in most instances better results are secured when the plantings are renewed every 8 or 10 years.

With young colts moderate exercise should be begun quite early, but full service of no kind should be required until the animal is reasonably well matured.

With the Home Makers

Springtime Suits and Dresses

BY STELLA G. NASH

WOMEN may conserve when buying their spring clothes this year—the same as they are conserving for fashion has planned it so. Skirts are narrower, jackets are slimmer and so many dresses are a combination of silk and wool or two kinds of silk that it is possible as never before to make new frocks out of old

this season. Such colors have a depressing effect upon everyone who sees them and so the light, cheery colors were chosen for this time of trouble when both men and women need encouragement and cheer rather than discouragement. Light tans, rose, rich blues, pearl gray, navy blue, black and white checks, and pretty mixtures are among the colors offered.

So much has been said about conserving wool and using silk in its place that it is well to remember this in planning spring clothes. Many silk suits for sports and general wear will be worn. Khaki kool is a very serviceable material for a suit of this kind. Amphora crepe, which is similar to pongee, is also popular.

Prunella is one of the newest things in woollens. It comes in plaids or in very broad stripes. The colors are blue combined with tan, black with any deep rich tone, or black with white that softens into silver. Military suits are made of khaki-colored worsted with narrow stripes that form big checks, and the more conservative suits are found in light-weight velour, twill velour, and silver-twill jersey. The last named fabric derives its name from its weave which gives it a silvery surface.

Hindu crepe,

the coat a youthful effect, may be made of white or contrasting material. The back and side fronts of the waist section are fitted and the waistline is a little above the normal. A peplum is gathered to the waist from each of the side fronts. Buttons form the trimming for this attractive coat. Sizes 16, 18 and 20 years.

The front gore of misses' and small women's skirt 8540 fits smoothly and the back of the skirt is gathered from seam to seam at the slightly raised waistline. A narrow belt finishes the top of the skirt. Sizes 16, 18 and 20 years.

Misses' and small women's dress 8724 may be developed in silk or light



weight woolen material. The waist has a gathered tucker of Georgette crepe, silk chiffon or something similar. The two-gored skirt is straight at the lower edge and is gathered all around. The wide belt in the front is attractively trimmed with buttons. Sizes 16, 18 and 20 years.

The front of girls' dress 8695 is cut in square outline and trimmed with buttons. The cuffs and chemisette are of contrasting material. A patent leather belt adds a stylish touch to the dress. Sizes 6, 8, 10, 12 and 14 years.

One of the best models for an everyday dress for the young girl is 8699. The dress closes from neck to hem at the center front and a three-piece skirt is gathered to the waist. Woolen or cotton materials are suitable for this dress. Sizes 6, 8, 10, 12 and 14 years.

Satin, foulard or crepe de chine may be used for misses' or small women's dress 8709. The chemisette may be made of white wash satin trimmed with small pearl buttons. The four-gored skirt is plaited at the sides and is gathered to the slightly raised waistline. The long sleeves are also trimmed with buttons. Sizes 16, 18 and 20 years.

Satin, serge, gabardine, checks or twills are all good materials for ladies' suit 8696-8708. The coat 8696 has a one-button closing and is cut away from this point to show the skirt. There is a tailored pocket on each side of the front and two buttons at the waistline at the back. Sizes 34, 36, 38, 40 and 42 inches bust measure.

The skirt 8708 has a fitted front gore and the back is gathered to a yoke. Sizes 24, 26, 28, 30 and 32 inches waist measure.

Ladies' two-gored skirt 8692 may be



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developed in serge, gabardine, chevrot, broadcloth or panama. The front and back gores are in the form of panels. The side gores are gathered between the plaits. There are buttons at each side of the belt for trimming. Sizes 24, 26, 28, 30 and 32 inches waist measure.

These patterns may be obtained from the Pattern Department of the Farmers Mail and Breeze, Topeka, Kan. Price 10 cents each.

A Word from Republic County

Now is the time to plan the garden and order what seeds are needed. We followed our grandmother's rule last year and saved almost enough seed for this year. A good many persons pay for seed in the spring that is wasted by them in the fall. I save the envelopes sent out by advertising companies thruout the summer and put the seed saved in the fall in them, writing on the envelope all I wish to remember about the contents.

If a roller is used to break the tops on the onions as soon as they begin to droop in the summer, the onions will be larger when they are ready to pull.

I brought this recipe for brown bread from Vermont a few years ago. Put in a greased pail and steam in a kettle of water 4 hours 1 cup of yellow granulated cornmeal, 1 cup of graham flour, 1½ cups of sour milk, ½ cup of molasses, salt, and 2 level teaspoons of soda. A Saturday night supper in New England of baked beans and brown bread is the finest meal of the week.

Mrs. R. A. Glenn.

Courtland, Kan.

Teach Children Gardening

There is no reason why every home should not have its vegetable garden, and there are many reasons why it should. Any available space however small can be turned into an area of interest and of value in a practical way, and the reward is far in excess of the small expense and time expended in its cultivation.

In the home where there are children a garden is invaluable in their instruction and training. The wonders of plant life may be explained and made attractive by the demonstration of the garden. It will be found that children take a great interest in growing things, and will come to have favorites among the different vegetables and varieties. Many of the little folks like to help in the tasks, and learn industry, method and garden lore at the same time. The garden may also be a means of directing the energies of a very active child into a healthy and normal channel, says a writer in the Mother's Magazine. One of the great needs in the life of all children is this direction of attention, and the garden can be made a place of romance and wonder by the proper instruction of childish curiosity.

Every man, woman and child should do his or her part by cultivating some kind of a garden. Even the little fence corners might be utilized for growing vines. One of the most beautiful sights we have ever seen was a row of blackberry vines trained against an old rock fence. The grateful odor and bloom of flowers and vegetables about our homes, the sight of scarlet peppers, purple egg-plants, yellow squashes and curly cucumbers, give a joy and satisfaction that only a real home-lover appreciates.

Make Childhood Happy

Every child who comes into the world is endowed by the Creator with the inalienable right to a carefree, happy childhood. Many are deprived of this right altogether. These can be helped by better legislation. Others miss half the joys of childhood because those who love them best are absorbed in cares which seem more important. How many children do you know who receive careful attention when they talk? Do you listen, or do you make your own plans meanwhile, contriving to say when the child has finished, "Yes," or "All right?" How much would it detract from your joy of living if every person you met gave like inattention to your enthusiastic comments?

There are few things which leave a brighter spot in a child's memory than a children's party, but some mothers imagine themselves too busy to give one. Is there a child in your home who

never has known the delight of blowing soap bubbles? Every child needs plenty of invigorating, inspiring and developing play. Has yours a sandbox? Teaching a child to do well some simple household task adds to his happiness, present and future.

The birthdays of children should be made red letter days. Has any child in your family missed the joy of finding a little unexpected treasure under his plate at breakfast on his birthday? Your child may be made happy 40 years from now by the memory of that glad day you gave him.

Little attentions do not spoil children. They make the children more considerate of others. A little girl only 3 years old waited with what patience she could command for her mother to look over the morning's mail. The time seemed long. Finally the child said, "Mother, please excuse me for speaking to you while you are so busy, but I want to know when that hen you set is going to get little birds." This child has been treated with gentle courtesy since the day of her birth.

The public press has pledged itself to fight for the happiness of children. Parents should pledge themselves to maintain it. A defrauded childhood is a wrong which can never be undone.

Mrs. Pearl Chenoweth.

Decatur Co., Kansas.

Do You Know Your Neighbors?

BY MRS. DORA L. THOMPSON
Jefferson County

The old time debate that compared the advantages of town and country life used generally to place emphasis on the fact that in the country one could find neighbors. In town, it is sometimes true that people do not know the folks living next door or sometimes across the hallway. If they are ill, they send for the doctor and a nurse and nothing is expected of the nearest neighbor. This is true in some country places. In every locality, too, there are some persons who "find fault with their neighbors." Many of us will have a chance after March 1 to show some mover or tenant what kind of neighbors we are.

We never speak of neighbors without thinking of those who lived around us in Oklahoma. We doubt very much if a better brand of good, unadulterated neighborliness can be found anywhere. The Oklahoma people have, as a rule, come there from various states. They haven't been there long enough to have married sons and daughters living on nearby farms for them to visit. A stranger is welcome; and, like one who joins the ring game, he's taken into the neighborhood's social circle on a par with others. Money is not, as a rule, plentiful and paid laborers are scarce during most of the year. Custom and conditions cause exchange of work. This exchange is a good thing in many ways but especially so in that it keeps neighbors in touch with one another. The one regret we had in leaving that state was that we were leaving such good neighbors.

When we voiced this regret, one of the women told a story that to many may be as old as the story of the man who wanted dough for his sick horse. It was new to us and many, many times since we have thought of it when we have heard people berating their neighbors. The story was something like this:

"An old man was driving along a country road in the spring when he met a man and his wife with a load of household goods. They were urging their team so much beyond reason that the old man stopped them and inquired what the trouble was.

"Oh, no trouble," they replied, "but we want to get out of this district. It's the worst place a fellow ever got into." The old man listened patiently while they called the country all the bad terms they could apply but when they began to describe the people as the meanest, low-down set of associates and neighbors one could find, he stopped them, started up his horse and called back: "Drive on, drive on. That's the kind you'll find everywhere you go."

"The next load was moving in no such haste. The woman was weeping and the man was sober. There was some trouble here, the old man thought as he drew up his horse to inquire.

"Oh, no, no trouble," they too, said, but they did hate to leave such a fine

farm and the good, kind people who had lived near them."

"Never mind," the old man said, as smiling he drove on, "you'll find the same wherever you go."

This story was fresh in my mind when we came to Jefferson county and we thought how true, in part, it was. Circumstances caused the writer and children to be left alone for the first four days after we came. We shall always remember the kindness of the men who took turns in tending the stock and in chopping wood.

One woman said the best gift she ever received was that brought by a neighbor the day she reached her new home. She was tired. Everything was in a mixed-up condition and the children were hungry. The neighbor came in with a kettle of soup, a loaf of bread, some butter and some sauce. It was a regular feast.

"The kindness I shall always remember," said another, "is the way Mrs. B. sent over word for us to come there for the night and for breakfast. It saved me a lot of work when I was tired out."

"When I'm settling," remarked another, "I like the people who come to see me to wear their housedresses and to be ready to push rods in curtains and help while I'm at work."

It's well to remember that the most lonesome time for a new settler is when things are in order and there is no friendly visit to liven up the regular routine. It's possible that the best of friends are to be found in the people now unknown, but who live on a nearby farm.

How I Make Rye Bread

I notice by the last issue of the Farmers Mail and Breeze that someone is having trouble making good rye bread. I always have good success with my rye bread so am passing on my recipe. Soften 2 cakes of compressed yeast in $\frac{1}{2}$ cup of lukewarm water. Scald 6 cups of milk or 3 cups of milk and 3 of water and when it is lukewarm add 1 tablespoon of salt, 2 tablespoons of molasses or sirup, and 2 tablespoons of shortening, then the yeast and flour. Let rise and cut down to rise again before putting in pans. Let rise 1 hour in the pans and bake 1 hour. This is delicious.

I also make good baking powder bread as follows: Mix together $2\frac{1}{2}$ cups of wheat flour, $1\frac{1}{2}$ cups of rye flour, 4 teaspoons of baking powder, 1 teaspoon of salt and $1\frac{1}{2}$ cups of nuts, then add 2 cups of sweet milk or milk and water, $\frac{1}{4}$ cup of sirup or molasses, and 1 beaten egg. Bake in two bread tins. This is excellent for sandwiches with butter or a paste of dates or other dried fruits.

Mrs. H. O. Strange.

Model, Colo.

One Way to Cure Nerves

A few years ago I suffered a nervous breakdown and as I was away from home, the attending physician wrote a letter to my father in which he described my condition as neurasthenic. When I returned home I read the letter and began to wonder just what a neurasthenic condition was. The more I learned about it the less admiration I felt, and it seemed to me that I could help myself to get out of it. I was of the nervous type, intense in feeling, and could scent disaster afar off. While not physically timid, I could always see the difficulties in the way of whatever I wished to do and lost poise over small trials. Anxiety for the welfare and health of those I loved sometimes almost unnerved me, and naturally all this reacted upon my physical health.

Severe headaches had made me apprehensive that I was in danger of a serious brain trouble, but when I found this headache termed "neurasthenic in type," I concluded that it was only a symptom after all and that if I could get rid of my arch enemy, neurasthenia, my headache would also vanish. This afterward proved true.

I called myself Miss Neurasthenia and when headaches threatened I tried to brace myself by exclaiming, "Come now, Miss Neurasthenia, play the woman and forget your nerves." I tried also to keep in good physical condition thru hygienic habits, good and simple food, outdoor exercise, plenty of rest, and medical attention when needed, but I really believe that my constant remin-

der that I was Miss Neurasthenia and had to keep a firm hold on myself did more than anything else to bring me out of the worry class into a state of nerve health.

M. E. R.
Perry Co., Pennsylvania.

How Do You Cook Rice?

Altho rice has remarkable food value, it has little individual taste, and so takes on the flavor of the dish with which it is combined. This quality makes rice an excellent foundation for milk and cheese dishes, or combination with meat, chicken and fish in stews. Rice can be combined with any vegetable, made into a variety of desserts, used to thicken soups or mixed with wheat flour or cornmeal in bread making. Even a spoonful left over can be stirred into bread, mixed in chicken stuffing or dropped in the soup pot. Left-over rice may be browned in fat for breakfast or made into cakes by adding an egg, a little milk, flour to thicken and a teaspoon of baking powder. These rice cakes are delicious with sirup.

Rice Cornbread.

Beat 3 eggs very light, add 1 pint of milk, $1\frac{1}{2}$ cups of boiled rice, $1\frac{1}{2}$ cups of cornmeal, 2 teaspoons of fat, 1 teaspoon of salt, 1 teaspoon of baking powder. Beat hard and bake in a shallow greased pan in a hot oven.

Rice Stew.

Boil together 1 can of English peas, $\frac{1}{2}$ cup of rice, 1 teaspoon of salt, pepper to taste, 1 tablespoon of fat, and 1 cup of sweet milk. Thicken with flour. Serve very hot in a hot dish. Cover the top with grated cheese before sending to the table.

The Slogans of 1918

Keep the Home fires burning brightly.
Do your bit in every way.
Food will win the war—don't waste it.
Save a shovelful a day.
—Kansas Industrialist.

A Hen Adopts Four Kittens

Mother hens are not always particular whether their children have two feet or four, according to a writer in Our Dumb Animals, who tells about one sitting hen adopting a litter of four kittens. Perfectly contented and intensely proud of her children, the old hen hovered and cared for the kittens with as much tenderness as if they had emerged from her own broken egg shells.

The old hen went to sitting without eggs under a grain bin in a barn near the straw bed where the kittens were born. Seeing and hearing the whining kittens, the hen walked up to the old cat and offered her services as a trained nurse. Then the old mother cat and hen were often seen hovering the kittens jointly. The real trouble arose when the kittens' eyes were opened and they began to wander about. This pleased the old hen, and just as soon as the mother cat left to go in search of food, the hen would take the kittens off for a stroll. She learned to hold her brood together with the cluck, cluck, instead of a mew, and became so foolishly fond of her four-footed, hairy children that she eventually became bold enough to dare the mother cat to interfere with her adopted family.

She was a good mother, and there would have been no serious objection to her caring for the new children had she been capable of furnishing them with the proper nourishment. She, however, did not neglect this. But she could never understand just why the kittens would not come and remove the fat, juicy worm from her mouth. When she would discover a fine worm or other dainty morsel, she unselfishly called her kitten children about her, bidding them eat until her voice grew weak, and then, with a much distressed mind, she would either have to eat the morsel herself or leave it on the ground. Poor mother! She loved the kittens with as much passion as if they had been her own. But the children became hungry, and in order to preserve

their lives it was necessary that the hen be put out of reach of the kittens, in order that their real mother might nourish them.

Dogs Save the Wounded

Some of the dogs used on the battle fields of Europe have been so trained that in traversing a field after a battle they wholly ignore a dead soldier but bark loudly when they discover a wounded one. Returning to their kennels for assistance, they lead the way back to the injured man as surgeons and stretcher bearers follow them.

Not all of the most valuable dogs in the present war are of high degree; thousands are just "plain dogs." It is what they can do, not whence they came, that makes dogs or men worth while.

Mounting guard in a trench at a listening post for long hours at a stretch, ignoring danger, alert every moment—this is what dogs are doing for the armies they serve. Some dogs, revealing by their growling the nearness of the enemy, have saved whole companies, especially in fogs.

Perhaps when those who do not now appreciate the value of dogs learn, after the war is over, the part these faithful animals have played in serving humanity in the various countries which have employed them, there will be less demand on the part of these persons for the extermination of the dog.

Let us not forget the wonderful work Red Cross dogs are doing in rescuing wounded and dying soldiers upon battle fields. When a battle is over they scour the field and bring back cap, musket or any article of wounded men's uniforms they can detach. Thousands of soldiers owe their lives to these brave dogs.

Many Red Cross dogs have been decorated with honors and the proposal has been made that a permanent monument be raised to their devotion and usefulness.

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Write to us for the Victor Record catalog—the most complete catalog of music in all the world—and we will also send you the name and address of the nearest Victor dealer. He will gladly play for you any Victor Records by the world's greatest artists, and demonstrate the various styles of the Victor and Victrola—\$10 to \$400. Ask to hear the Saenger Voice Culture Records.

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The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rests the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production last Year was 225,000,000 Bushels; the demand from Canada alone, for 1918, is 400,000,000 Bushels.

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's help will be required not later than April 5th. Wages to competent help, \$50 a month and up, board and lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

U. S. Employment Service, Dept. of Labor

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Young Kansans at Work

How the Sprites Went on a Strike

BY JOSEPHINE E. REED

JOHNNY was sound asleep, so he did not know what strange things were taking place. Ordinary people would have seen only a child's white bed where a tangled-haired boy lay with covers kicked off him. But one blessed with fairy vision would have noticed a tiny-queer object sitting on the boy's chubby hand, while other sprites hopped about on his toes and body. By listening one could hear a faint murmur.

"Johnny doesn't treat me right," declared the sprite of the foot. "He goes to the sand pile and pulls off his shoes and stockings and I get so cold and then he takes croup and his mother doesn't know why."

"Just think of the way he treats me," said the sprite of the hand. "He never will keep me inside the blankets at night and I nearly freeze. I work for him all day but he never tries to be kind to me. Then he won't wear his mittens and I get all chapped and sore."

"He would be a queer looking boy without me," said the sprite of the face, "and yet he never cares how I look. He won't wash and sometimes I am so ashamed of being dirty I feel like hiding myself. But he does not care how I feel."

"I suffer most of all," said a brown little fellow, who was the sprite of the stomach. "He won't eat anything that is good for him; he just stuffs himself with candy and cake and mince pie until I am all in a whirl and I don't know whether I am right side up or dancing a jig on a scenic railway."

"No wonder I ache so terribly, if that is the way he does," said the sprite of the head, "and he never will go to bed when it is time unless he cries so that I am nearly crazy."

"Unless he learns better, he will be a sickly, disagreeable boy," they decided, and then they planned to give him a lesson. After he woke up, they began working out their plan. When dinner was over he thought of the sand pile, but when he tried to go to the door he discovered his feet would not move. He was surprised; they never had acted that way before. He stooped down to take off his shoes to see what was the matter, but his fingers would not unbutton them. Then his backbone concluded to help teach this strange lesson and would not hold him up, so Johnny fell limp on the floor.

When mother came in she was terribly alarmed. "What is the matter with my boy?" she asked, but even his lips and tongue had gone on a strike and refused to answer. His parents sent for the doctor who was as much surprised as they.

"There is just one reason," he said at last, "and that is he does not take care of them. No horse can work for us unless we take care of him, and Johnny can't freeze his hands and feet and abuse his stomach if he expects them to do good work."

This was something Johnny never had thought of and as he lay there unable to move, he made up his mind if he ever became all right again he would certainly take care of the body that worked so hard for him.

The sprite of the head knew what he was thinking and told the other sprites. As they were really very kind and did not wish to punish him more than necessary, his backbone at once straightened out and Johnny could sit up; his feet carried him over to his mother; his arms went around her neck, and his lips said:

"Mother dear, I'm going to take better care of myself so I won't get sick any more and worry you."

You may be sure mother was glad and when Johnny went to the bathroom and washed his face, the sprites all looked at each other and winked.

The Amethyst Ring

How many of you, I wonder, know the gem that is especially appropriate to the month of your birth. There is one young reader of the Farmers Mail

and Breeze who will never forget the name of her birth stone, for when she was 5 years old she received as a birthday gift a beautiful little book in which was inscribed a still more beautiful poem, composed by the giver. The recipient of the book was Gretchen Annabelle Metzke of Topeka, Kan. She learned to recite the poem when she was 5 years old. That was 8 years ago and she still treasures the book in which it is written as one of her most valuable gifts.

Here is the poem:

Under the stem of a buttercup,
That grew by a garden wall,
A little fairy made her home,
Hid in the grasses tall.

And every night she climbed the stem,
As the petals folded up,
And slept on a bed of silken gold,
Deep in the buttercup.

One day there came a fairy prince,
Who brought her an amethyst ring,
And they journeyed away to his palace hall
On the tip of a humming-bird's wing.

The writer of the verses is C. S. Ross of San Francisco. He has written many poems for publication.

As generally chosen, the birth stones for the 12 months of the year are: garnet, January; amethyst, February; bloodstone, March; diamond, April; emerald, May; pearl, June; ruby, July; sardonyx, August; sapphire, September; opal, October; topaz, November; turquoise, December.

Pictures Show Terms of Grammar

Each of the four pictures in this puzzle represents a grammatical term. Address your answer to the Puzzle Editor of the Farmers Mail and Breeze, Topeka, Kan. There will be a



package of postcards for each of the five boys and girls sending the most neatly written correct answers.

The answer to the flower puzzle in the February 23 issue is: 1. pansy; 2. sunflower; 3. four-o'clock; 4. tulips. Prize winners are John Vandewell, Atchison, Kan.; Vera Gildhouse, Fairview, Kan.; Nellie Slyter, Fontana, Kan.; Ruth Brown, Bloomington, Kan.; Josephine Yeoman, Lawrence, Kan.

Governor Recognizes Youths' Part

Recognition of the Junior Red Cross as the official organization for war relief work in the Kansas schools was given in a proclamation issued by Governor Capper. The action is in line with that requested of the governors of the five states in the southwestern division and will unify the efforts of 300,000 Kansas school children in war relief work, making them a vital factor in the task the nation has taken up to safeguard future generations.



Mr. Papp: Say, could you direct me to some restaurant where they serve hare in the soup?

REO

"THE GOLD STANDARD
OF VALUES"



A Seven Passenger Six That You Can Afford

THE GOLD STANDARD OF VALUES

Salient Features of the Reo Six

50 HORSE POWER, Six-cylinder motor cast in threes.
REO DESIGNED, Reo made—throughout.
126 INCH Wheel Base.
CANTILEVER rear springs—Semi-elliptic front springs.
FULL FLOATING rear axle.
TIMKEN BEARINGS throughout.
NOISELESS spiral-bevel driving gears.
REO ONE-ROD centre control.
HYATT QUIET bearings in transmission—at all points.
MULTIPLE Dry-disc clutch.
BOTH BRAKES operated by foot levers and provided with ratchet locks. Extra large and both operating on rear hubs. No hand brake.
CLUTCH AND SERVICE brake are interconnected.
TWO UNIVERSAL Joints in drive shaft.
TORQUE SHAFT relieves driving mechanism of road stresses.
SUB FRAME carries motor and transmission.
EXTRA LARGE—and round—spokes in wheels.
OVER-SIZE TIRES—34 in. x 4½ in.
PERFECT LUBRICATION at every moving point.
REO RADIATOR—Reo designed, Reo made.
REO-REMY Electric Starting, Lighting and Ignition system.
REO STEERING GEAR—exclusively Reo. No back-lash—self-adjusting for wear. Positive.
50 PER CENT OVERSIZE in all vital parts—crank-shaft, axles, driving shafts, gears, frame, wheels, tires.
NET RESULT—Reo upkeep equalled by no other 7-passenger car.

PRICE IS F. O. B. LANSING AND
SUBJECT TO INCREASE
WITHOUT NOTICE

WE ARE NOT THINKING of the price—for that isn't the primary consideration in the selection of a car.

YOU KNOW YOUR OWN NEEDS—whether a five passenger car is sufficient; or if you really need, at times, room for more.

AND YOU KNOW better than anyone else can tell you, what your price limit is.

AND SURELY AT ITS PRICE this Reo Six is the greatest value obtainable in a car of established reputation.

AND REO REPUTATION is second to none.

WHEN WE SAY "Here is a seven-passenger Six that you can afford," we are thinking of the same item that you, an experienced motorist, are considering—

NAMELY—UPKEEP. That is the first thing to consider in the selection of an automobile.

CERTAINLY YOU CAN afford to own a seven-passenger car—and you can treat yourself to the luxury of a sweet-running, silent Six—if you can feel that not only in first cost but also in cost of upkeep it will be well within your means and accord with your ideas.

ASK ANY REO SIX OWNER to tell you of the upkeep cost of his Six—and the longer he has owned and the farther he has driven his Reo, the better will his answer sound.

HE WILL TELL YOU that, having compared notes with friends who own and drive other makes of cars—fours as well as sixes—of the same passenger capacity, he has never found one that compared with his Reo Six in low cost of upkeep.

AND HE'LL TELL YOU, too, that he has yet to find even a five-passenger car—four or six—the operation, repairs, replacements and general upkeep cost of which proved as low as his Reo Six—except one the five-passenger Reo.

NATURALLY a five passenger car ought to be cheaper to maintain than one of seven-passenger capacity—but most are not, when you look up the figures.

REO DEALERS TELL US that their records for the past three years show that Reo Six owners on the average have paid less than eight dollars per car per year for replacement parts.

JUST READ THAT AGAIN—with thousands of Reo Sixes running in all parts of the country, over all kinds of roads and handled by all kinds of skilled and unskilled drivers; most of them owner driven and owner cared for (or neglected)—

THE AVERAGE COST per car, per year, for replacement parts was less than eight dollars!

FRANKLY WE DON'T believe that record can be equalled by any other seven-passenger car on earth.

AND WE MAY ADD that the records on the five-passenger Reo show less than seven dollars per car.

THE SAME QUALITY—the same sound engineering; the same ripe experience; the same attention to little details and the same construction, inspection and testing of every car enter into the making of all Reo models.

COST OF UPKEEP is always uppermost in the minds of Reo engineers, when designing and when specifying materials. And since the same desire is uppermost in the minds of the most experienced buyers—we meet on a common ground.

WE ARE FRANK TO ADMIT that to a large extent the phenomenally low cost of upkeep of Reos is due to the fact that Reo buyers are, as a class, better informed and more careful in their selection than the average.

REOS DO NOT APPEAL to those who look only to superficials—Reos are built for connoisseurs and Reo owners are mostly men of ripe experience in motoring. They, therefore, combine prudence with intelligence in their choosing of an automobile.

IF YOU ARE ONE of that kind, we say to you, here is a magnificent, luxurious, seven-passenger six that, both in first cost and cost of upkeep, you can well afford to own.

REO EFFICIENCY sets the price lower—Reo quality guarantees low upkeep.

Reo Motor Car Company, Lansing, Mich.



Reo Six Touring
7-Passenger
\$1550

(The Special Federal Tax must be added)

YOU TAKE NO RISK IN BUYING AN

Ironclad
THE IRON COVERED INCUBATOR

We Give You 30 Days' Trial 10-Year Guarantee

Why take chances with untried machines when for only \$12.50 we guarantee to deliver safely, all freight charges paid (East of Rockies), **BOTH** of these big, reliable machines fully equipped, set up, ready for use. Why not own an Ironclad outfit? Order direct from this advertisement and we will gladly give you

Both for \$12.50 Money Back If Not Satisfied

Freight Paid

Ironclads are not covered with cheap, thin metal and painted like some do, to cover up poor quality of material. Ironclads are shipped in the natural color—you can see exactly what you are getting. Don't class this galvanized iron covered, dependable hatcher with cheaply constructed machines—and don't buy any incubator until you know what it is made of. Note these Ironclad specifications: Genuine California Redwood, triple walls, asbestos lining, galvanized iron covering, galvanized iron legs, large egg tray, extra deep chick nursery, hot water top heat, **COPPER** tanks and boilers, self-regulator, Tyco's thermometer, glass in door, set up ready for use, and many other special advantages fully explained in FREE Catalog. Write TODAY or order direct from this advertisement.

IRONCLAD INCUBATOR COMPANY, Box 111 Racine, Wis.

COPPER TANKS AND BOILERS

Galvanized Iron Asbestos Redwood Insulated Board

150 EGG INCUBATOR CHICK BROODER

MADE OF CALIFORNIA REDWOOD

Write for Free Catalog Today.

"WHY CHICKS DIE IN THE SHELL"

We want to tell you how to prevent chicks from dying in the shell just at hatching time, how to save them from White Diarrhoea or Bowel Trouble; how to build the best Home Made Brooder in the world from an ordinary box or change your old one. Above information absolutely FREE, for names of 5 or 6 of your friends who use incubators. Send Names Today. **RAISALL REMEDY CO., Box 56, BLACKWELL, OKLAHOMA.**

MANKATO SPECIAL

Big Book FREE

Get it quick—express prepaid—Mankato Special with six great improvements: Large oil tank, new automatic regulator, new heating system, new ventilating system, wonderful results. Write for book: **Mankato Incubator Co., Box 712 Mankato, Minn.** Write Today

Gold Plated Flag Pin Free

Flag Pins are now being worn by all patriotic American Citizens. Get in line and show your patriotism by wearing one of our Gold Plated, engraved pins which we send for only 10c to help pay advertising expenses. **Jewelry House, 137 Eighth St., Topeka, Kan.**

Capper Poultry Club

Founded by Arthur Capper of Topeka, Kansas 1917
Bertha G. Schmidt, Secretary

First Annual Offering of PUREBRED POULTRY

PLYMOUTH ROCKS	Chicks	Pullets
Barred Rocks	41	15
White Rocks	15	2
Buff Rocks	6	7

Marie Riggs, Breed Club Secy., Banner, Kan.

RHODE ISLANDS	Chicks	Pullets
Rose Comb Reds	49	17
Single Comb Reds	11	5
Rose Comb Whites	18	8

Grace Young, Breed Club Secy., R. 2, Leavenworth, Kan.

WYANDOTTES	Chicks	Pullets
White Wyandottes	39	1
Silver Wyandottes	8	1

Marie Hlatt, Breed Club Secy., R. 1, Colony, Kan.

ORPINGTONS	Chicks	Pullets
Buff Orpingtons	11	1
White Orpingtons	10	1

Lila Bradley, Breed Club Secy., R. 3, Le Roy, Kan.

LEGHORNS	Chicks	Pullets
Single Comb White	41	13
Single Comb Brown	4	8
Rose Comb Brown	4	8

Rose Taton, Breed Club Secy., Sataanta, Kan.

WHITE LANGSHANS	Chicks	Pullets
Thelma Martin, Breed Club Secy., R. 1, Welda, Kan.	7	7

Buttercups, 4 cockerels, 2 pullets
Helen Hosford, R. 1, Pittsburg, Kan.

ANCONAS, 6 cockerels
Estella Chaffee, Hamlin, Kan.

All the cockerels and pullets offered for sale are purebreds selected from the contest flocks.

For free catalog, write to the secretary of the breed club representing the variety in which you are interested.

After receiving catalog, write to the girl nearest you who has the variety you desire. Prices will be quoted on application and prompt shipment will be made. All members live in Kansas.

Capper Poultry Club
Bertha G. Schmidt, Sec'y, Capper Bldg., Topeka, Kan.

Biggest Hatches Strongest Chicks

That's what you will get with my Hatching Outfit—and I can prove it. The whole story is in my big catalog, "Hatching Facts", sent Free. It tells how money is made raising poultry. Get this Book and you'll want to start one of my Guaranteed Hatching Outfits making money for you. It's good patriotism and good business to raise poultry this year, and

\$8.95 140-Egg Buys Champion Belle City Incubator

Prize Winning Model—Double Fibre Board Case, Hot-Water, Copper Tank, Nursery, Self-Regulated Safety Lamp, Thermometer Holder, Egg Tester, With \$5.25 Hot-Water, Double-Walled, 140-Chick Brooder, both only \$12.95

Freight Prepaid

East of Rockies—allowed towards Express and to points beyond—ship quick from Buffalo, Minneapolis, Kansas City or Racine, Used by Uncle Sam and Ag'l Colleges. With this Guaranteed Hatching Outfit and my Guide Book for setting up and operating you can make a big income. And my

Special Offers Provide Ways for You to Make Extra Money

Save time—Order Now, or write today for my Free Catalog, "Hatching Facts"—It tells all. Jim Mohan, Pres. **Belle City Incubator Co., Box 21 Racine, Wis.**

Egg-o-hatch applied to eggs during incubation strengthens the chick and weakens the shell. It supplies free oxygen, absorbs carbon dioxide and makes brittle and porous the animal matter of the shell. The biggest thing ever offered to poultrymen. 50 test hatches show average of 98 per cent for Egg-o-hatch eggs and 81 per cent for eggs not treated, right in same machine. Full size package, for 600 eggs, 50 cents at dealers or postpaid. Ask your dealer for Lee Poultry Library (5 books) free or send us 5 cents for mailing direct to you.

GEO. H. LEE CO., 261 Lee Bldg., Omaha, Neb.

DOUBLE YOUR CROPS \$\$\$ FOR YOU \$\$\$ IRRIGATE WITH PUMPS

Write J. H. DOUSMAN
310 Rollins Bldg., Kansas City, Mo.

Tells Why Chicks Die

E. J. Reefer, poultry expert of 458 Reefer Bldg., Kansas City, Mo., is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhoea over night. All poultry raisers should write for this valuable free book.—Advertisement.

To Win With Poultry

Breeding for Eggs

BY ALBERT G. REQUA

I began breeding the Rose Comb Rhode Island Reds for egg production 12 years ago. I have succeeded in breeding four generations that have reproduced their egg laying qualities. In 1914 "Trilby the 1st" laid 254 eggs. Her ancestors on both sides had been in the 200 egg class for four years. "Trilby the 2nd," a daughter of "Trilby the 1st," laid 266 eggs in 1915. Her daughter, "Trilby the 3rd," laid 272 eggs in 1916, and her daughter, "Trilby the 4th" or "Lady in Red," did her bit in winning the war by laying 288 eggs in 1917. Five full sisters of "Trilby the 4th," with herself, laid 262 eggs as an average during 1917, which demonstrates that these birds have the laying qualities in the blood.

You ask how it was done? That is a long story, but will say, first, by get-

selves. Send to some breeder who is breeding for eggs and buy a male to mate with your pullets, then hatch from eggs from that pen. It might be well to buy a sitting or two of eggs from some other breeder who has an egg-laying strain. Keep this up every year, and always be careful about the shape of your pullets. They must have long, broad backs, which means length and depth of body, for therein lies the egg capacity. Note the shape of "Trilby the 4th." She is almost a perfect specimen of a laying type.

Keep away from mating related birds as much as possible for in-breeding or line-breeding, in my experience, weakens the vitality. The hen that lays 250 eggs in a year must have great vitality. While in-breeding or line-breeding is all right in breeding for show birds, if carried too far it will weaken the whole flock.

The illustrations herewith are from



Trilby the 2nd.



Trilby the 4th.

ting eggs from birds supposed to have egg records, then by trap-nesting and buying birds from a laying strain. After four years I got some of my birds in the 200 egg class, then I began keeping a register and pedigreeing all my birds so I could know just what they were doing and how they were bred.

Persons came to my yards to see my birds and would say, "We hear you have some great layers. What in the world do you feed them to make them lay?"

What would you think if you had a registered Holstein cow with a high milk record if a man should ask you, "What do you feed her to make her give so much milk?"

I am frank to say that feed and care go a long way toward egg production, but am sure that breeding has lots to do with it. I feel that I have built up a strain of layers that will reproduce their laying qualities.

I used to live on a farm and did just what many farmers are doing today with the chickens; I kept five or six of the best and largest cockerels and turned them all loose with the hens, then when the eggs were gathered, I selected the largest eggs for hatching. This system will never get you anywhere. Select seven or eight of your best shaped pullets with long, broad backs, and put them in a pen by them-

photographs taken when the pullets were each 9 months old and in laying condition.

N. L. Harris to Arizona

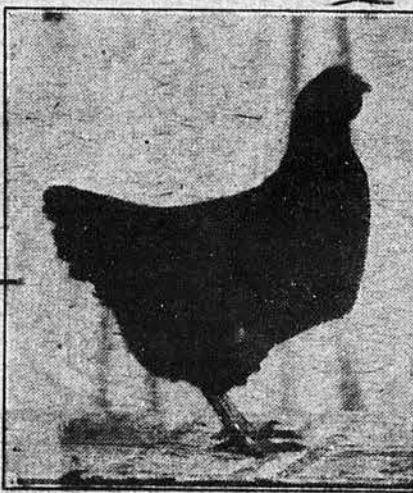
N. L. Harris, former superintendent of the Kansas State Agricultural college poultry farm, has resigned to accept a position as poultry specialist in the extension division of the Arizona Agricultural college at Tucson. Mr. Harris was very efficient in his work in Kansas, and has a wide acquaintance among the farmers and poultry breeders of the state. Harold Amos, who assisted Mr. Harris several months, is the new superintendent of the college poultry farm.

New Incubator—Free

The Wight Co., D 17, Lamoni, Iowa, wants to give every reader of this paper a new \$5.00 incubator for just a few minutes' work at home. Write for special offer.—Adv.

The colt's system requires a considerable amount of bone and muscle building material; and this can be had only by feeding nitrogenous feeds such as oats, bran, a little oil meal and where obtainable clover hay.

When the cows have been long in milk the churning becomes more difficult.



Trilby the 3rd.



Trilby the 1st.

A Question of Breeding

Egg production is largely a question of breeding, according to Harold H. Amos, superintendent of the Kansas State Agricultural college poultry farm. Eggs from winter layers should be selected for hatching purposes.

Under natural conditions no eggs were laid in the winter months. Artificial methods have been employed until by proper selection and management a large number of eggs can be had during the coldest months of the year.

Feeding and care have a great deal to do with winter egg production. Of greater importance, however, are selection and breeding. It has been determined by careful observation that, generally speaking, the hens that make the best records during the fall and winter months are the best all year layers.

All hens will lay fairly well in March, April, and May. The poor layers seldom, if ever, lay during the months when prices are the highest. They are not economical producers and should not be kept as a breeding stock.

Where possible, breeding pens should be maintained during the hatching season. All poor layers, undeveloped pullets, and otherwise imperfect birds should be discarded prior to the breeding season if satisfactory results are to be expected.

Early hatched chicks are the most profitable both for meat and for egg production. They are the most easily raised because while they are young they are not subjected to the cloudy, rainy weather which comes later in the spring. They usually are more vigorous. Later chicks have a higher rate of mortality because of the extremely hot weather and the presence of a greater number of parasites.

General purpose breeds should be hatched not later than the last of April if the pullets are to be developed for egg production the following fall and winter. The young cockerels can be disposed of as broilers at much better prices than those of later hatches.

With strictly egg breeds it is not advisable to hatch before the middle of March as the hens will often begin to lay early and go into molt about the first of January. In the present abnormal times it may prove profitable to hatch as late as June 15, but chicks hatched then cannot be kept as profitable egg producers. They should be marketed in the late fall.

Hatch the Chickens Early


MRS. LIZZIE WEBSTER

I raise quite a flock of chickens to sell every year. I used to set the eggs under hens. Five years ago I bought an incubator and I have had success with it. Before I use it in the spring and after every hatch I wash the inside of the incubator with hot water in which 2 tablespoons of carbolic acid have been dissolved, and let it dry and air out before setting. I get the machine all ready, and fill and light the lamp at least 24 hours before I am ready to set the eggs.

If I buy the eggs I get them the day before I set them. Then in the morning I wash all the eggs, one at a time, in a pan of warm water laying them on a blanket to dry. When they get dry if the machine is heated up to 103 and seems to be running all right I mark the eggs and fill the trays. I begin turning the eggs when set 24 hours and turn them twice a day until the sixteenth day when I stop turning them. I air the eggs the first week while I turn them. The second week I air them from 15 to 20 minutes every time I turn them. The third week I air them 30 minutes twice a day until I hear the shells pipping. I quit airing them and leave them in the incubator. The third week I sprinkle the eggs sparingly with warm water twice a day. I cut pieces of old white cloth to fit the nursery floor and spread the cloth smoothly over the bottom of the machine, fitting it up closely around the sides. This makes the floor soft for the little chickens to walk around on, and when the hatch is over I roll the cloth up and take out of the machine and wash or burn it and the machine is not difficult to clean.

When I hear the first chicken peeping in the shell I wring a piece of flannel out of warm water and lay it over the eggs, leaving it there until the hatch is over. This keeps the eggs from getting too hot and drying out, and keeps the chickens from dying in the shells. Whenever I see some hatched out of the shells

Prevent chick loss!



For years I have made a special study of the causes of chick loss. I have proved that these causes can be largely prevented or overcome. I know that my Poultry Powder is just the help that chicks need to get through the first vital weeks.

Dr. LeGear's Poultry Powder

has saved millions of chicks. Thousands of poultry raisers use it to save their chicks from gapes, leg weakness, bowel trouble, etc., and to make them grow faster and do better. It will PAY YOU to use it, too. This of all years you can't afford to lose chicks—they'll be worth so much more money this year than ever before and, besides,

the Nation is calling for more poultry to help win the war

My Poultry Powder increases egg production. It also strengthens breeders and helps fertility so that you'll get larger, stronger hatches. Try it at MY RISK—buy a package from your dealer. If it doesn't do all I claim, the dealer is authorized to refund your money.


Dr. LeGear's Lice Killer

is a life-saver at chick time. Treat all your setting hens with it; put it in nests, etc. Absolutely GUARANTEED to rid your flock of lice.

Over 40,000 dealers sell my remedies—never sold by peddlers. Ask YOUR dealer. Also ask him or write for my 112-page Stock & Poultry Book FREE.

Dr. L.D. LeGear Med. Co., 746 Howard St., St. Louis, Mo.

Dr. LeGear's Stock Powders keep stock fat and healthy




Dr. L.D. LeGear U.S.
(In Surgeon's Robe)

Dr. LeGear, the noted poultry expert, won the Grand Price Cups at Kansas City Poultry Show, January, 1918.

Increases egg yield;—here's proof:
Clarksburg, W. Va., Feb. 12, 1918

"Have used your poultry powder two years; and had no sickness in my flock in that time. That it will promote egg laying, I have proved beyond a doubt by feeding 12 pullets and not feeding a pen of 12 full sisters—all other rations the same. The pen fed LeGear's powder produced 30% MORE EGGS in their pullet year than the pen not receiving the powder. Also moulted out and was laying before other pens through moult."

J. A. PRESTON



I raise the cloth and transfer them to the nursery and throw out the shells. Since I use the wet cloth over the eggs I do not have any more crippled chickens. I do not feed anything for 36 hours, then I feed sparingly of hard boiled eggs, rolled oats, a little millet seed, water and sour milk in small vessels that the chicks cannot get into. I also sprinkle fine sand around for them to pick up. I raise my young chickens in small houses fenced in so the old ones cannot get to them. After they are 2 weeks old I feed them all they want, keeping the millet seed where they can run to it all the time, also sand, sour milk and water.

I always keep a sack of chicken feathers hanging in a dry place to use when chicks get caught in a rain. I put an old tub or box in a dry place, cover the bottom well with feathers, put in the chickens, cover them well with the rest of the feathers, put a cloth over the top of the tub and go about my work. When they get thoroly dry I take them out and let them go.

A Flock Record

Showing what a dozen laying hens will do in supplying a family with fresh eggs at a low price, L. H. Replogh of Meriden, Kan., reports the result of 12 Single Comb White Leghorns for the year ending January 24, 1918. The 12 pullets were kept in a 6 by 14 foot house, well ventilated and lighted, and

a yard 14 by 100 feet. The first egg was laid January 24, 1917, on which date the year's record was started. During the year 1,088 eggs were produced at a cost of about 17 cents a dozen. The eggs were worth \$24.94 at market prices in Meriden, or \$9.52 more than it cost to produce them. The feed consisted of soaked oats in the morning, wheat or bran at noon and corn at night. Green grass and weeds were fed during the spring and summer. Being yarded, the pullets did not get anything to eat except the feed that was provided by the owner. These pullets did not make a big showing in egg production, as the average yield was only 90% eggs, but this goes to show that with only moderate production a dozen hens are profitable for any family to keep.

Raising Geese

The first year I raised geese I bought 17 eggs, which cost me \$1.15, from which I hatched 10 goslings, and I raised every one of them. I sprinkled the eggs when they had been set on two weeks, the third week about twice, and the last week about every day.

When the little goslings were hatched, I fed them bread scraps, soaked in water or milk, and clover until they were about a week or so old. After the first week, I began feeding them a mash, two-thirds bran and one-third shorts mixed. After they are

about 4 weeks old, they can get along on good tender grass and clover.

They must have plenty of water all the time. They must not go to the stream where the turtles will catch them. I raised the little goslings by hand, as they are very awkward and clumsy and are mashed easily.

The young geese must not be allowed to be exposed to the cold rains until they are all feathered out. They chill very easily. Then they become stupid and die.

I picked my 10 geese three times and got 5 pounds of feathers. I sold four out of the 10, which averaged \$1.30 apiece. I kept four geese and two ganders, and last spring the four geese laid an average of 22 eggs apiece, from which I hatched 40 goslings. The eggs from young geese do not hatch so well as do those from old geese that are fully matured.

Miss Nina R. Anderson.
R. 18, Richland, Kan.

Will Save Your Chicks

Any reader of this paper who writes P. J. Kelly, the Poultryman, at 63 N. 2nd St., Minneapolis, Minn., will receive a Free Copy of his new booklet, "White Diarrhoea in Baby Chicks." It tells how to prevent, remedy and save the whole hatch. It's free and this paper urges you to write for it at once.

—Advertisement.

GATLOWAY'S

[\$ 46⁹⁰

**375 lbs.
Capacity
and Up**

Money-Back Guarantee With Every Sale

Read the Proof!

"I like your separator just fine. I think it is as good as they can be. If I were to buy another separator, I would not want any but a Galloway. They can't be beat."—Oscar A. Vick, Calmar, Iowa.

"Please send us your late catalog. We have bought several articles of you already, including a Galloway cream separator, and it has proven all that is claimed for it. Therefore we know that the name 'Galloway' stands for fair dealing, and we want your catalog."—DeWitt Bros., Cuchara Junction, Colo.

"I had some of the milk skimmed by our New Galloway Sanitary Cream Separator tested by our State Farm Bureau man, and he found only .01 of 1 per cent butter-fat in the skim milk." — C. R. McCombs, New Castle, Pa. Route No. 2.

Galloway

Don't Buy a Separate
Send the Coupon Today for My

Here is my Masterpiece of separator manufacturing, the best separator designing brains that money would buy—a separator with all the good features of other separators combined in this one perfect

GALLOWAY IS STILL ON

STILL DOING BUSINESS AT THE OLD

LISTEN! When I started in the manufacturing business in a small way in Waterloo over a dozen years ago selling a small article—the harrow cart—and later on added the manure spreader, some of the wise ones said: "Galloway will not last long." But we just kept sawing wood, and giving the people bigger values than anyone else, earnestly trying to make our products better.

Then we added a line of Gasoline Engines; then came the Galloway Sanitary Cream Separator; and later on the Galloway Efficiency Tractor. Our business has grown and expanded year after year, and in spite of conditions has moved onward and upward in volume—winning us thousands upon thousands of satisfied customers everywhere—in every state in the Union and in Canada. This only goes to prove conclusively that our plan of manufacturing and selling direct to

the user is absolutely satisfied. And while it takes orders promptly, it still we have been stronger than ever to take care of the it is on the way, accomplished by the houses, made up of We couldn't do the lines, but this is a tremendous effort on the part of our organization. We shipmen that if you say we are For a record we want to experience

Sensational Features of the New Galloway 1000

First: Every Modern Practical Separator Improvement Known Embodied in This Machine. The New Galloway Sanitary Cream Separator is simpler than Simple Simon, and is as sanitary as a dinner plate. It is as good in the parts you cannot see as in the ones you can see. The same expert attention is given to fitting a bushing as to balancing a bowl. These and many other equally important features have made it the choice of wise, careful, conservative and discriminating separator buyers who wanted the best—and got it. The New Galloway Sanitary Cream Separator has won its place at the front by force of its merit, and in the face of the strongest kind of competition.

Second: In simplicity of design it has no equal. Only few working parts, a main drive gear and pinion, worm wheel, bowl spindle, upper and lower bowl-spindle bearings, handle and clutch case, and bowl—these are the few parts held in perfect alignment by the gear case casting.

Third: It is not hungrily possible to build a cream separator that is mechanically more perfect—low speed bowl; discs entirely separate from each other, no rack, sharp edges to break up the globules of butter-fat; a simple, self-centering neck bearing; crank shaft, of high speed steel in bearings $\frac{3}{4}$ in. long; a helical drive gear to offset side thrust of the worm wheel, lessens friction; large worm wheel, phosphor bronze wearing surface; both gear shafts and bowl spindle bearings supported by one case, perfect alignment; automatic oil supply, all working parts in an oil spray.

Fourth: This New 1918 Galloway Sanitary Separator could not be built from better materials nor by more skilled or expert workmen, nor in a more modern chain of factories, thoroughly equipped with the latest machinery and tools, nor by a more efficient management.

Fifth: The bowl is the secret of the skimming efficiency of the New Galloway Sanitary Model. Skim milk is heavier than cream. Just as soon as the milk enters the bottom of the bowl the skimming disc throws the heavier skim milk to the outside of the bowl and squeezes the butter-fat toward the center.

The dividing disc which floats in the milk and discharges the cream into the overflow tank, is actuated by the centrifugal force of the bowl and the bowl never floods and therefore perfect skimming efficiency is maintained.

Sixth: The New Galloway seams. The boy's tractor refuse to collect. Every cleaner than when they were put to give it a firm foundation. Galloway Model because of the

Seventh: The New Galloway Model, which is turning out 1000 guns per minute, which in turn is turning out 1000 guns per minute. The women on the farm and drip pan are combined in one feature adds to the ease of operation and you will marvel at the ease of operation.

Eighth: Every size of this Sanitary and it does not skim anything that it will not do, you

**BUY
NOW**
Before
the next
increase
in price!
**SAVE
MONEY!**

SPREADERS

The one really advanced spreader of the year. It has embodied all the prime features of the world's best spreaders. Every new and practical spreader improvement is now on the new Galloway No. 8 Model. It is low down. Easy to load. Front trucks cut under. You can hitch close to load. Its perfect construction makes it light draft. Two horses can handle it easily. V Rake and steel beater make for even spreading. The toughest lumps are broken up and uniformly spread. Clean out push board. Empties low thoroughly. Has automatic stop. Strong tongue, double chain drive; spreads from 4 to 24 loads per acre. Remember, spreading is your big hope for bumper crops every harvest. Spreading renews "worn out" land. Get a Galloway and make the job easy, and save big money besides.

ENG

When labor
mechanical pro-
and costs high.
There is a
your part of
way about the
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fuel cost of
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blue-hot heat
Make and burn
fire, easily con-
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It for
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expensive
test
effort

**We ship from factories or from
warehouses in Chicago, Kansas City, St.
Paul or Council Bluffs to save you freight**

WM. GALLOWAY, President **WM. GALLOWAY**



Win- Ga

Biggest Made

Food will help
Garden is
Besides this
make you as
pure tested and

Order Direct

Fin a dollar
you postpaid
here: a guaran
seed for a cent
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SENSATIONAL SANITARY SEPARATOR

Send for
My Book

til You Get Galloway's Proposition!
Book About this New Sensational Sanitary Separator!

uction of which is the accomplishment of years of experience and the
ne—a separator that invites comparison—that has built into it all the
eparator that is so good mechanically that it is **positively sensational!**

wn away. These are times when you must get the best
ade. This is no time to take chances in buying. If you
time, effort and cream by the old-fashioned gravity methods
—or by using an out-of-date machine—**stop it, and get a**
y Sanitary model. It will actually pay for itself the first
extra amount of butter-fat it will save for you. If you
old-style separator that wastes cream, dispose of it, and
alloway Sanitary. It will stop the loss and save you money
twice-a-day, every-day-in-the-year skimming, there is no
t can beat the New Galloway Sanitary model. Because of
n skimming efficiency, it will make you money every day
it, in both prosperous and economical times.

Another thing: Conditions now on raw materials, deliveries, and
prices were never so uncertain. If ever there was a time to plan ahead
and get your orders in early, **this is the year!** In our manufacturing
business we are now contracting for materials to be delivered next fall!
We have to do it. We buy early to protect ourselves, and we advise
you to **buy early and protect yourself.** A little careful, early planning
has saved many a man real money, and this is the year when you will
save more than ever before by buying early!

And don't forget that when you consider the present high prices of
live stock, corn and other farm produce, compared to the present low
price of my New Sanitary Model Separator, you are buying it at a figure
that is **actually lower than ever!**

JOB "DIVIDING THE MELON"!
STILL SAVING MONEY FOR MY FARMER FRIENDS!

renewed times on different occasions to fill
the tremendous demands made upon us,
organization two features that stand out
shipments, and our new Service Department,
out if you would wire us for something today
we get your wire. This has only been
For example: Today we have in our ware-
houses come in, over 5,000 cream separators.
we manufactured cream separators or other
experience has accomplished. From present

indications there is going to be the biggest demand in our history for Galloway goods
this spring, and my personal advice to you is that if you are going to need anything
in our line to write us early, because there are two big things to guard against—
additional raise in price, and inability to deliver the goods promptly a little later on.

We have made special arrangements this year so that you can order now a
Galloway Separator, Manure Spreader or engine, and pay for it after next harvest.
Write today for our special proposition. If you have never bought from Gallo-
way there never was a better time to get acquainted than right now. Come to
Waterloo and see our factories as pictured in the lower left hand corner. You
will be welcome. You will be taken care of. Your visit
will be appreciated by our men and by me personally. **Wm. Galloway**



Sanitary Separator

It keeps the skim milk and the butter-fat apart,
and discharged. All the milk gets the full skim-
ing, each drop gets its full share to skim. The top of
the milk is at the bottom. These are the secrets of its
success. The weather or feeding condition of your herd,
of the big, roomy, one-piece supply can without
error, making it positively impossible for any
the milk is held, so that both cream and milk are
dry. It touches the floor at the points necessary
or sweep under. The women folks like the New
res.
Very easy to operate because of a number of new
features. It is a low speed type, with only 50 revolu-
tions. The crank shaft is just high enough so that
possible advantage with the least strain on your
because of its easy running. The cream pail shelf
that they can be easily raised and lowered. This
one-day trial in your own dairy, or 180 milkings,
factory operates.
to skim up to its rated capacity. We have not
make the price seem lower. If you buy a New
keep it. If we claim the New Sanitary will do
the 90 days' trial on which we sell it.

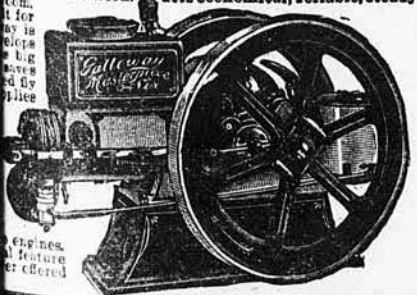
BUY NOW!—Pay Next Fall After Harvest!

Get your separator now when you need it. Begin the big cream saving
it will make at once! Don't delay getting the implements you need because
of money matters, for I have arranged my easy buying plans on purpose
to accommodate responsible farmers.

On my principal manufactured lines, Separators, Engines and Spreaders,
I offer your choice of five easy buying plans and terms, one of which will
surely suit you. You can buy for Cash, Bank Deposit, Part Cash and Part
Note, All Note, and Installment without interest. So buy now and get
your Galloway Separator, Engine or Spreader while you need it and pay
for it later after you sell your crops or with the savings these imple-
ments earn for you. Some farmers may not be worth as much as others
in dollars and cents, yet if they are responsible the amount of their wealth
does not make much difference. It is integrity that counts. Good credit
is capital. Ask about these buying plans now.

STATIONARY OR PORTABLE 1 1/2—16 H. P.

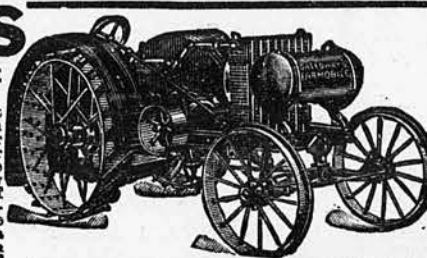
you should plan to meet these conditions with a
to do the work. It is economical, reliable, steady



TRACTORS

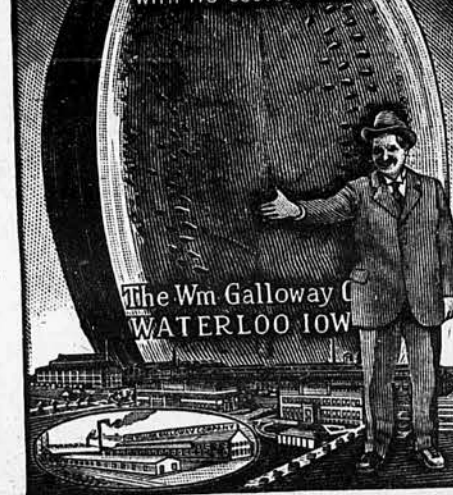
GALLOWAY'S EFFICIENCY — 12-20 SIZE
BURNS EITHER KEROSENE OR GASOLINE

The great new Galloway Tractor is built
like an automobile. It has anti-friction
bearings. Twenty-one sets of Hyatt roller
and ball-bearings save the engine's power
for the draw-bar and the pulley where the
power is needed. Dynamometer tests show
Galloway Tractor to take only 13 1/2 % of
the engine's power to pull the tractor with-
out implement. This is about 1/4 to 1/5 the
power required by other tractors. Has a
four cylinder valve in the head, modern
motor, water cooled. Exclusive patented
transmission. Will pull three 14-inch
bottoms 8 to 9 in. deep in clover or timo-
thy sod. Will do any portable engine job—
sawing, silo filling, corn shelling, shred-
ding, handles a 28-in. grain separator, any
kind of feed grinder, pumping or irriga-
tion plant. Double chain drive. State
whether kerosene or gasoline burner is desired.



GALLOWAY'S 1918 CATALOG

THE HOUSE THAT DIVIDES THE MELON
WITH ITS CUSTOMERS



MAIL THIS COUPON TO-DAY!

WM. GALLOWAY, President

WM. GALLOWAY COMPANY, 47 Galloway Station, Waterloo, Iowa

Send me the Spring Edition of your 1918 Book.

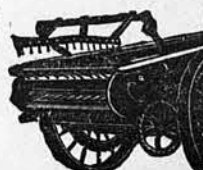
If you want the
1918 Seed Book
mark cross here.

Name

P. O.

R. F. D. State

Mark a Circle around the implement you want special
information about. This is important,
because it means you will get the exact information you want.



ANY, 47 Galloway Station, WATERLOO, IOWA
FARM IMPLEMENT MANUFACTURING SPECIALISTS!

Garden \$1.00

HERE ARE THE SEEDS

Included in This Great Dollar War Assortment
One Box Sweet Corn (Golden Bantam)
One Box Beans (Golden Wax)
One Box Peas (Excelsior)
One Pkt. Lettuce (Big Boston)
One Pkt. Lettuce (Summer Favorite)
One Pkt. Beets (Little Gem)
One Pkt. Tomato (Ponderosa)
One Pkt. Cucumber (Rockyford)
One Pkt. Radishes (French Breakfast)
One Pkt. Turnip (Snowball)
One Pkt. Carrot (Danvers Half Long)
One Pkt. Beans (Dreer's Bush Lima)
One Pkt. Cabbage (Copenhagen Market)
One Pkt. Parsley (Mass Curled)
One Pkt. Cucumber (Improved Long Green)
One Pkt. Onion (Red Globe)
One Pkt. Squash (Warted Hubbard)
One Pkt. Sweet Peas (Giant Flowers)
One Pkt. Asparagus (Giant Victoria)



FARM ANSWERS

Sorghum for Sirup.

Kindly tell me how to grow sorghum for sirup.
Greenwood Co.

In reply to your recent inquiry, I am requesting that our bulletin on "Growing Sorghums in Kansas," which has just been received from the printer, be sent you. You will find in that a page discussing varieties of sorghum for sirup. This discussion will apply to your conditions.
K. S. A. C. S. C. SALMON.

Caring for a Lamb.

I wish you would tell me how to handle my lambs this spring to the best advantage.
Rush Co.

When the lamb is born, place it and the ewe in a pen measuring 4 by 4 feet, or 4 by 6 feet. Little attention need be given the strong lamb, if the mother has milk, except to see that it finds the teat. If its mother has no milk, it is best at first to take a little from a ewe that has more than enough for her lamb. The next best thing to do is to feed whole cow's milk, using

about 2 tablespoonfuls every 2 or 3 hours. The milk should be heated to about 90 degrees Fahrenheit in a bottle placed in warm water. In order to give the milk at proper temperature, the bottle and the water should be in a pail which can be taken to the place where the lamb is to be fed.

A lamb too weak to stand to nurse should get a fill of its mother's milk as soon as possible. If it is anxious to nurse, back the ewe into a corner and hold the lamb to the teat and increase its anxiety to feed by patting it on the rump. If it refuses to nurse, draw some milk from the ewe and feed the lamb from a bottle until it gains in strength and develops a strong appetite.

One of the best ways to handle a chilled lamb is to place all but its head in as warm water as the elbow can bear. As the water cools, put in more warm water to keep up the temperature. When the lamb becomes somewhat lively, take it out of the bath, and rub it briskly with a coarse cloth until it is almost dry. Then feed it, wrap all but its nose in a thick blanket or cloth, and place it in a warm place to sleep. Keep it away from its mother no longer than absolutely necessary. Always wrap a lamb in a cloth when placing it in artificially heated quarters.

When the ewe disowns her lamb, try to get her to claim it. A ewe recognizes her lamb at first wholly by smell. This being the case, it may help to smear on her nose and on the rump of the disowned lamb some milk drawn from the ewe. Another procedure is to tie the ewe in a small pen where it is easy to hold her and force her to let the lamb nurse often, and being tied it is difficult for her to get away from it.

When the disowned lamb is one of a pair of twins, both lambs should be placed in a pen next that occupied by the ewe so she can see them, and both should always be put with her at the same time. In her anxiety to nurse the lamb she claims, she is likely to let the other one nurse also.

If a ewe with a good supply of milk is left without a lamb, an attempt should be made to have her raise one, an orphan or one not getting enough milk from its mother. If she has just lost a lamb, it usually is easy to get her to take another by immediately removing the skin of the dead lamb and placing it on the stranger intended for her. If this proceeding is not possible, the suggestions given for getting a ewe to claim her own lamb may be employed.

Teaching Lambs to Eat.

How can I get lambs to eating quickly?
Woodson Co.

Every effort should be made to keep the lambs growing from the start. The first essential is to teach them to eat. Liberal feeding of lambs dropped before pastures are ready is profitable under any ordinary grain prices. This is best done thru the use of a small inclosure known as a "creep," to which the lambs have access at all times, but into which the ewes cannot come. The creep should contain a rack for hay and a trough for grain, so arranged that the lambs cannot get their feet into them.

All feed given, especially ground feed, should be clean, fresh, and free from mold. The lambs will begin to nibble at the feed when from 10 to 16 days of age. Pea-green

alfalfa of the second or third cutting is one of the most relished feeds. Flax, sweet wheat bran probably ranks next. For the first few days these are the ideal feeds. A little brown sugar on the bran at first will make it more palatable. Linseed meal also is good when mixed with the bran. Until the lambs are 5 to 6 weeks old all their feed should be coarse ground or crushed. The Ohio Experiment station has found that for young lambs that are to be marketed for ration of corn is of about the same value as one of corn 5 parts, oats 2 parts, bran 2 parts, and oil meal 1 part. Oil meal is especially relished by lambs at this time and would be especially valuable in promoting growth rather than fat.

Such feeds as middlings are too floury for extensive use. Rye is less palatable than oats or barley. Soy beans may replace the linseed meal if they cost less. Cleanliness is an important factor in keeping the lambs growing. Always feed to an empty trough, and if it becomes soiled, scrub it out with lime-water.

Grimm Alfalfa.

What do you think about growing Grimm alfalfa here?
Osage Co.

I believe the common variety of alfalfa would be better for your conditions than Grimm. Grimm is harder than common, that is it will stand more severe winters, but on the other hand it does not make so vigorous a growth and does not produce so large a yield. I am requesting that our bulletin on "Alfalfa," be sent to you, which will give you additional information.
K. S. A. C. S. C. SALMON.

Castor Beans.

Can we grow castor beans profitably here?
Norton Co.

It is our understanding that the Aircraft Board of the War Department is contracting to grow 180,000 acres of castor beans in the Southern states. It is our opinion that castor beans can be grown to better advantage in these states than in Kansas, and on the other hand, that Kansas is better adapted for growing food crops. For this reason we are not advocating a large acreage of castor beans in this state. We have no pamphlets dealing with the culture of castor beans, and I am not informed as to the price of seed or the market for the crop. Undoubtedly the War Department will be the chief market if the war continues.
K. S. A. C. S. C. SALMON.

Schrock Kafir.

What do you think of Schrock kafir for this county?
Reno Co.

We have tried Schrock kafir and do not find it superior to other varieties of sorghum or kafir that may be grown. It cannot be depended on to produce any more forage than Kansas Orange or similar varieties of sorghum, and the yield of grain usually is less than for other varieties of kafir. Also, the grain contains tannin, which reduces its feeding value somewhat. I would suggest that you try some earlier maturing strains of kafir such as Pink or Dwarf Blackhall, providing, of course, that you can get the seed. The supply of seed of all varieties this year is limited.

I am inclosing herewith a list of farmers having seed of various kinds for sale.
K. S. A. C. S. C. SALMON.

Bluegrass in Kingman.

Can I grow bluegrass successfully here on a lawn?
Kingman Co.

For your section of Kansas, I would advise spring seeding. Bluegrass probably would be the most satisfactory lawn grass that you can use, but it will require considerable watering to get it started unless you have an unusually wet spring. I would recommend seeding as early in the spring as possible, using a grass drill if you can secure one.

The purpose in using burlap covering is to keep the moisture in the ground until the seed germinates. While I have not seen this method tried in your section of the country, it seems to me that it would be a very good practice providing the covering was not left on too long. A light covering of straw or hay is used sometimes for the same purpose.
K. S. A. C. S. C. SALMON.

Away With Kafir Ants.

I had some losses from kafir ants last spring. How can these be controlled?
Johnson Co.

The kafir ant is one of the most serious pests of germinating sorghum throughout Eastern Kansas. Within a day or two after planting the ants attack the seed, hollowing out the kernel, generally preventing germination.

The kafir ant is reddish in color and is one of the smallest ants known. It is found nesting under rocks in pastures and in the soil of cultivated fields.

From the information thus far accumulated, the best measures of control against this insect are good cultural methods in preparing the seedbed, namely, fall plowing, spring cultivation, and early seeding, preferably by the surface planter method.
K. S. A. C. C. C. CUNNINGHAM.

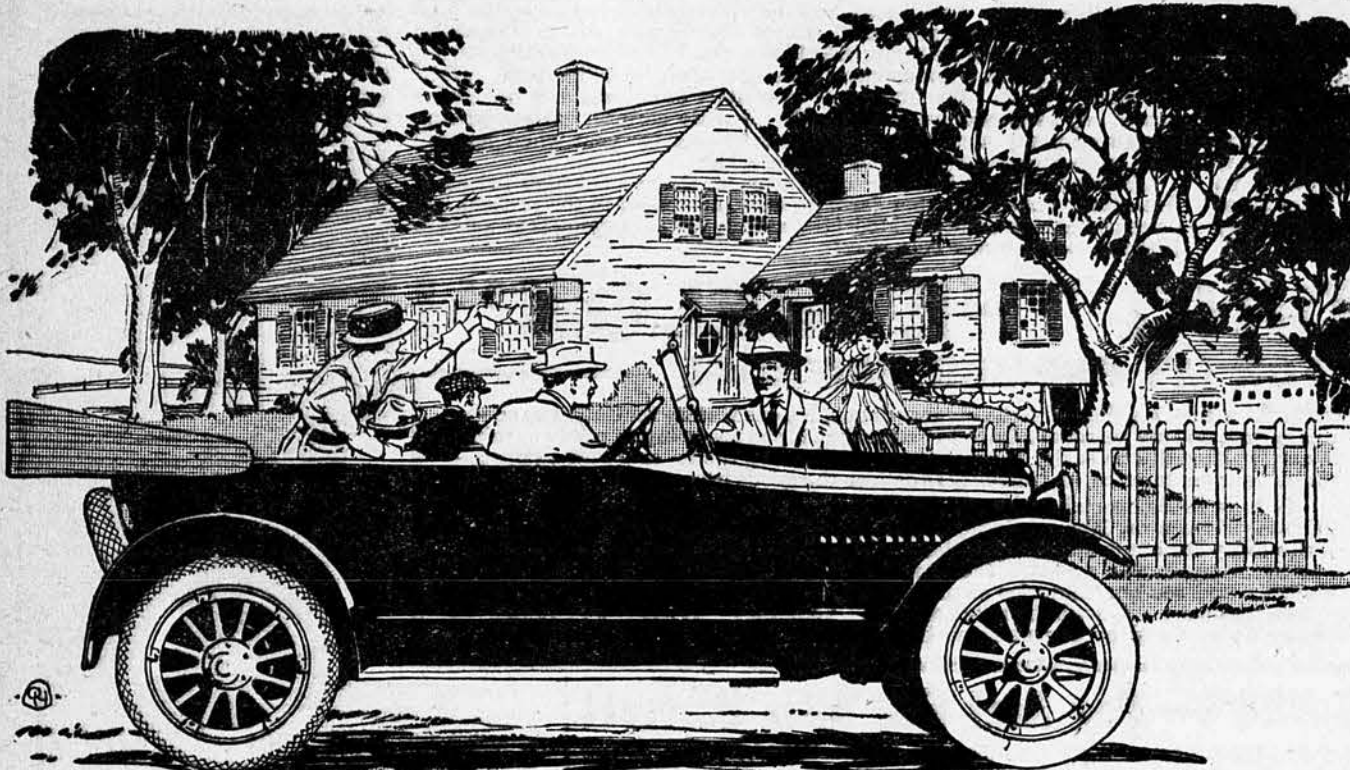
Concerning the Milos.

What varieties of milo do we grow in Kansas? Please tell me about the crop.
Norton Co.

Milo stalks are stout, rather pithy, and scantily supplied with leaves as compared with kafir. It is inferior to kafir for forage, but because of its earliness it is grown extensively for grain when the seasons are too short for kafir. Chinch bugs prefer milo to most of the other grain sorghums, hence it usually is not profitable where these insects are numerous. Milo is apparently immune to kernel smut.

Three varieties of milo are grown in Kansas, the Dwarf milo, Standard milo and White milo. Dwarf milo is the only one grown extensively.

Dwarf milo matures in from 90 to 100 days and is well adapted for growing where the drought is frequent and severe. Where the production of grain is the first consideration, Dwarf milo is the best crop to grow in the western third of the state, except in the extreme northwestern corner, where it cannot be depended on to mature grain in unfavorable seasons. It is adapted especially to the southwestern part of the state from Ness to Clark counties west and from Ness to Gree-



PAIGE

The Most Beautiful Car in America

Make The Minutes Count

In these war days you must realize that it becomes a patriotic duty to own a motor car.

The business of the nation must move forward on high gear. There must be no "let ups"—no wasted effort—no inefficiency. Every true American is expected to quicken his stride and make each minute a productive minute.

On the farm, especially—where distances are great—a dependable motor car is quite as necessary as the telephone. It is the most efficient form of transportation that has ever been developed—and transportation is the key to our entire national problem.

So, by all means, get a motor car—for yourself and Uncle Sam. Any car is better than a slow, plodding, horse-drawn vehicle, but common sense will dictate the wisdom of buying a good one while you are about it.

Take up the matter in the same careful way that you select agricultural machinery. Look for enduring quality rather than mere price. Buy a manufacturer's reputation rather than four wheels and a painted body.

If you make your selection on this basis, we are quite content to abide by the result. If you search for motor car quality you must find the Paige.

PAIGE DETROIT MOTOR CAR COMPANY, 205 MCKINSTRY AVENUE, DETROIT

March 9, 1918.

counties south. Where both grain and range are desired, half is better than milled for all but the extreme western part of the state. White milo is similar to Dwarf milo in time required to mature, and leafiness. The only difference of importance is the color of the grain which is white as compared with the yellow grain of the Dwarf. Its area of growth and adaptation is the same as that of Dwarf milo. Standard milo is similar to Dwarf milo except in size. It grows from 2 to 3 feet tall. Standard milo has practically been superseded by the Dwarf variety. K. S. A. C. C. C. CUNNINGHAM.

Barley in Montgomery County.
What do you think of barley as a crop for this county, especially for hogs?
Montgomery Co. T. H. A.

Barley is a satisfactory hog feed and will grow in your section providing Chinch bugs are not numerous. Chinch bugs appear in places where they are numerous reduce the yield greatly. We have no bulletins on barley. To understand that C. A. Barker of Hoxie, Mo., has 1500 bushels of the 1915 crop for hogs should be sown as early in the spring as the ground can be gotten into condition. About the time oats are usually sown could be all right. I would recommend 2 bushels an acre. S. C. SALMON. K. S. A. C.

Sweet Clover for Pasture.
Would Sweet clover be a good crop to grow for pasture?
Lincoln Co. E. W. C.

I believe that Sweet clover would be satisfactory as a pasture crop for your conditions. Planted this spring, it should give some pasture by the middle of June. You could mow it very heavily, however, the first season. Next season an acre should yield pasture for a cow during the summer. I will possibly pay better than this, you should have a favorable season. It can be pastured continuously, but better mowed if the field is divided into small pastures at a time. It should be satisfactory for seeding along the creeks, and would be much better than your weeds. The spring, they will soon learn to like Sweet clover as it is one of the earliest varieties to begin growth. The White Sweet clover is the best to grow. You can secure seed from the Barteldes Seed company at Lawrence, Kan. I am inclosing one of our seed lists which may be of some assistance to you. S. C. SALMON. K. S. A. C.

Bulletins on Good Feeding.
Can you tell me of some good bulletins on feeding methods?
Cherokee Co. D. C. I.

The following bulletins can all be obtained from the United States Department of Agriculture, Washington, D. C.
Raising and Fattening Beef Calves in Alabama. (Department Bulletin 73.)
Economical Cattle Feeding in the Corn Belt. (Farmers' Bulletin 588.)
The Feeding of Dairy Cows. (Farmers' Bulletin 743.)
Feeding and Management of Dairy Calves and Young Dairy Stock. (Farmers' Bulletin 753.)
Equipment for Farm Sheep Raising. (Farmers' Bulletin 810.)
How Livestock is Handled in the Bluegrass Region of Kentucky. (Farmers' Bulletin 823.)
Farm Sheep Raising for Beginners. (Farmers' Bulletin 840.)
Utilization of Farm Wastes in Feeding Livestock. (Farmers' Bulletin 873.)
Swine Management. (Farmers' Bulletin 874.)

Farming Methods in Reno.
Kindly tell me how to get a start of alfalfa and Sweet clover. How should I prepare corn ground for alfalfa? How much land do I need to pasture 12 head of stock?
Reno Co. A. W. D.

Replying to your recent letter, we have sent you our Circular No. 44 and Bulletin No. 191 dealing respectively with Sweet clover and Alfalfa. These circulars I believe will give you the information you desire, but if there are any points which are not clear to you or on which you wish further information, I shall be glad to write you in detail.
As to the amount of pasture required for 12 head of stock, we find that on good ground an acre of Sweet clover will keep an animal thru a season. Possibly a little more than this would be required for your conditions.
With respect to the seeding of your alfalfa on corn ground, I would suggest that you sow the ground very shallowly very early in the spring, or else disk it thoroughly and work it down into a good seedbed with a harrow. The principal point is to have the ground thin with a little fine dirt on top to cover the seed. Seed reasonably early, that is, before the middle of May, and preferably before the first of May, and avoid seeding too late. If possible use an alfalfa drill.
K. S. A. C. S. C. SALMON.

Hog Cholera.
How can I recognize hog cholera by its appearance?
Leavenworth Co. S. U. B.

Hogs suffering from cholera show a rise in body temperature, refuse to eat, appear depressed, may be constipated or suffer from diarrhea, followed by malnutrition, emaciation, weakness, and a staggering gait especially noticeable in the hind quarters. The hair becomes rough and the skin about the mouth, ears and abdomen may be inflamed and purplish in color. The eyes are frequently inflamed, and about the lids a mucous discharge collects. Respirations may be rough, accompanied by a short hacking cough. The symptoms of hog cholera are not easily differentiated from symptoms exhibited by other swine diseases, and it is difficult to make a positive diagnosis of the disease from any single symptom alone. Hogs sick with cholera should be regarded with suspicion, quarantined, isolated, and maintained in a cool place pending an expert diagnosis. The course of hog cholera in a herd is rapid and fatal—acute cholera—or several days may be mildly affected and linger through cholera. In the same herd animals may be affected with either the acute or

the chronic type. Chronic cholera may exist in a herd several days before it is recognized and often gains a foothold before the owner is aware that cholera is present. In the acute form of the disease, animals sometimes succumb without premonitory symptoms of illness, or die following a short illness.

Spontaneous Combustion.
Can you tell me about spontaneous combustion causing fires? Is there much danger of this?
Lyon Co. D. O. P.

Many destructive fires have been caused by the spontaneous ignition of hay, especially clover and alfalfa, both in mows and in stacks. The first cutting of alfalfa seems to be the most dangerous in this respect. If hay of this kind has rain or dew on it or if the stalks are not cured thoroughly when it is put up, the moisture will cause fermentation, which may produce sufficient heat to start a fire. The combustion always starts in a part of the mow or stack at some distance from the surface, but it cannot continue long without oxygen from the outside, and it may cease without ever having come to the surface. Its presence can be detected by a peculiar sooty odor or by smoke irritating to the eyes. It may take place from a few days to several weeks after the hay is put up. There is little danger from this source if the hay is cured properly. Spontaneous combustion has been known to take place in damp fodder and straw, and bins of moist grain and seeds also are dangerous

in this respect. Manure piles create a great deal of heat, but manure does not burn readily.

Cloths, waste and sawdust saturated with organic oil of any kind are ever more subject to spontaneous ignition than hay. Such oils unite with oxygen when exposed to the air, and heat is produced. If the oil is spread upon cloth or other material which ignites easily, and if the conditions are such that the heat is not radiated, the temperature may become so high that a flame will be produced. The accumulation of such materials should be guarded against.

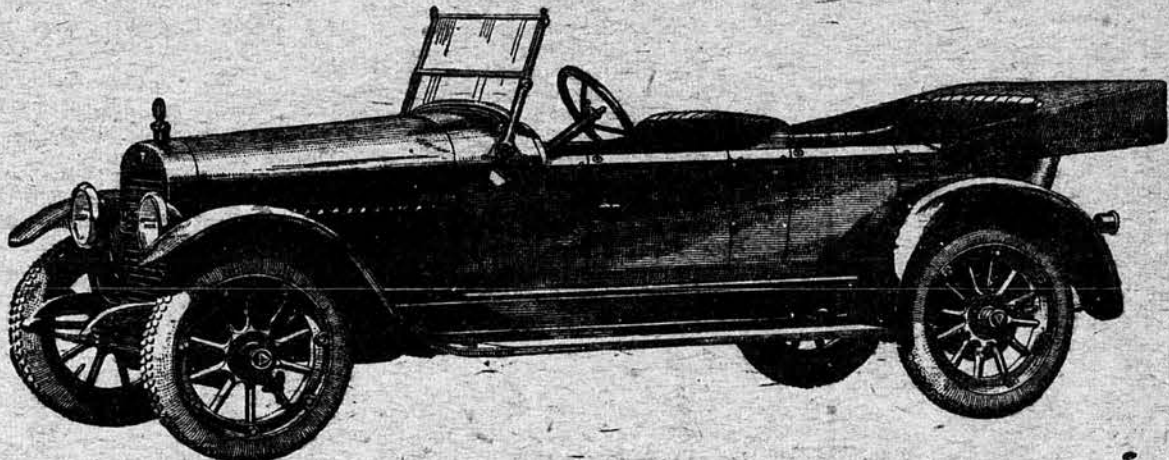
Fattening the Hogs.
I wish you would make some suggestions for handling fattening hogs. We shall certainly need to hold down costs this year.
Brown Co. A. R.

After weaning, the stock selected for fattening is fed in two periods—first, the growing period, from weaning until approximately six weeks to two months of the marketing date; and, second, the finishing period from that time up to marketing. During the first, or growing period, the ration is much the same as that given to the breeding stock—that is, all of the nutritious pasture they need but with a heavier grain ration of slightly wider nutritive ratio. The object is to grow a pig with plenty of size and scale and one that will fatten quickly and economically. Some feeders use the self-feeder at this period and obtain excellent results, giving the pigs free

access to such feeds as corn, mill feeds, and tankage while on pasture. The practice tends to shorten the feeding period and produces pork with slightly less grain a unit of gain. Under these conditions pigs do not neglect their forage but really make more economical use of it than when the grain is limited. In feeding a limited grain ration on pasture more success has been attained by giving an amount equal to 3 per cent of the body weight than when fed in lesser amounts.

The most rapid but also the most expensive gains in the pig's life come during the finishing period. During these last few weeks before slaughter the animal is given all the feed he will consume with relish. Much more corn and less protein concentrates are fed during this period, a representative ration being composed of 10 pounds of corn to 1 pound of tankage. The change in rations must be gradual and the increase in feed not too rapid; otherwise the animal is likely to "go off feed," or lose his appetite. Pastures are very valuable at this time, especially those composed of feeds high in protein, for they supply a cheap source of nitrogen and keep the pig toned up and his appetite keen. A hog will consume a 3 1/2 to 4 per cent grain ration at this time, depending, of course, on the character of the feeds and the weight of the hog, a larger hog eating less in proportion to his weight than a smaller one. The self-feeder was primarily devised to finish the hog at this time and serves its purpose in excellent fashion. Slightly more rapid and economical gains are made by its use than can be obtained by the best of hand feeding.

HUDSON SUPER-SIX



The Farmer, Most of All, Needs a Car That Stays Adjusted

He Will Have No Time This Year to Spend in Making Automobile Repairs

Time is the most valuable thing a farmer can obtain this year.

All his energies must be used in productive work.

He will be short-handed much of the season. The automobile will increase the amount of work he can do. But if the car upon which he is to rely is one which must be constantly readjusted, he will find it a poor helper.

He won't be able to get expert automobile repair work as he has in the past. All the best mechanics are needed by the government. They are wanted to repair the aeroplane and truck motors for the army. The best men are already in the service.

This is the time when it is safe to buy only the best. The car you get this year must do all you require of it, without needing special service attention. You won't have any time to give to it, and there are not enough experts left to look after all the cars that will need their attention.

Then also it is better in the long run to choose a car that will give years of service rather than one

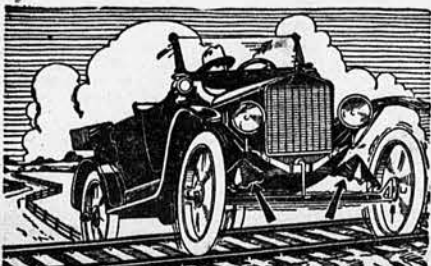
which can be relied upon for only one or two seasons.

The Hudson Super-Six is known to thousands of farmers. There is not a section in the country where it is not recognized as the most reliable car a farmer can choose. Altogether there are 50,000 Hudson Super-Sixes in service.

To develop its endurance, regular stock cars have been used in the most trying tests. They have established records for endurance and speed that no other car has equaled. Hundreds of owners have kept us informed concerning the service their cars have given them. It has enabled Hudson engineers to increase the endurance limits of these new models.

If you choose a Hudson Super-Six you will be independent of the scarcity of expert repairmen. You will get a car in which there is no question as to its reliability. You already know in what esteem it is held by those who own Hudsons. Don't you think it better to get a proved car this year? You might regret the purchase of another car.

HUDSON MOTOR CAR COMPANY
Detroit, Michigan



Tires \$500 Apiece!

Tires are selling at fabulous figures in Europe. War conditions may make them go almost as high here. You owe it to the country and to yourself to make your present set give the greatest possible mileage.



Shock Absorber Cars

Hassler Shock Absorbers save tires because they support the weight of the car. When the car strikes a rut, they gently compress and absorb the jolt instead of forcing the tires to lift the car. The increased mileage from one set of casings pays for them.

Hassler Shock Absorbers make your Ford ride as easily as a \$2,000 limousine. They save gasoline, reduce up-keep cost one-third, and increase the resale value of your car. 300,000 Ford Owners recognize their economic necessity.

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ROBERT H. HASSLER, Inc.
662 Naomi St., Indianapolis, Ind.

Profits in Food

There is a world shortage in food which means top prices prevail. It is doubtful if meat prices ever return to the level existing before the war.

You, who raise, fatten and market cattle, sheep and hogs, receive only a part of the profit there is in them. The big packing houses are making the millions.

Get Into the Meat Packing Business Yourself

Join the 1,600 other livestock raisers in the southwest who own, control and are now operating the new

Thomas Ruddy Company

Independent Packing Plant
Kansas City

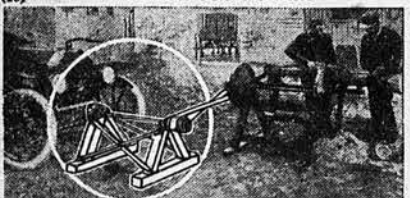
Take advantage of the opportunity to establish competitive conditions in Kansas City (the second largest livestock market) and enjoy the dividends which the meat packing business so abundantly yields.

Send your name and address for a copy of the new book just published describing the enormous profits which the big packers are making and read the full details about the new independent plant of the Thomas Ruddy Company. Copies obtainable free upon request from

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FILL YOUR SILE
SAW YOUR WOOD
SHELL YOUR CORN
PUMP YOUR WATER
ELEVATE YOUR GRAIN



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Friction Clutch Pulley on end of shaft. Ward Governor, run by fan belt, gives perfect control. Money back if not satisfied. Ask for circular and special price.

THE WARD CO., 2033 N St., Lincoln, Neb.

Abnormal Prices for Feeds

Every Farmer Should Study the Markets Closely

BY SANDERS SOSLAND

FEED TRADE conditions in the United States are in a highly unsettled state, record or near record prices prevailing, while the supply of several feeding stuffs is far below the abnormal demand. Many producers of livestock, as a result of the highest prices in history and difficulty in obtaining enough of any particular feed, have been forced to institute new methods in the feeding of cattle, hogs and sheep, and these important changes, forced upon the producers as one of the direct results of the war, will go down in the history of livestock production as the beginning of a highly advanced epoch.

Prices for feeds are practically double the quotations of a year ago. On the other hand, livestock prices have not increased to a comparative position. An interesting feature of the feed and livestock markets is given in the fact that when prime beef steers were selling on the Kansas City market at 17 cents a pound, corn, alfalfa and other feeding stuff commodities were much lower than today; yet prime beef steers are selling at about \$13 a hundredweight at the present time.

Corn is moving to market in an unprecedented volume, and large receipts are expected until along in March, at which time farmers as a rule begin their spring planting operations. Despite the record movement of the coarse cereal, prices are near the highest level in history. With mixed corn selling at \$1.90 and as high as \$2 a bushel, the feeder of livestock is reluctant to make purchases. Present values of cattle and hogs do not warrant the feeding of corn at \$2 a bushel. Practically half the crop of corn was damaged by frost, and immediate feeding has been necessary to enable growers to realize any profit from the frosted grain. This partly accounts for the great increase in the average weights of hogs reaching markets.

The acute shortage of wheat, in the face of a huge demand from both domestic and governmental sources, is resulting in a large consumption of corn in the form of meal as human food. There is an unlimited demand for corn flour and meal, which millers are unable to fill. To this fact is attributed the present level for corn prices, millers being eager buyers of the white, yellow and mixed varieties. A moderate demand prevails for corn chop, but buyers hesitate in making purchases, due probably to high prices, and the fear of holding the product, corn of last year's crop containing an excessive amount of moisture. One competent authority in the cash corn market declared prospective buyers have lost more by delaying purchases—they fearing governmental price fixing—than they would have lost if they had bought and the Food Administration had marked the price down 50 cents. At this time there is little likelihood of fixed prices.

Strength in corn, as well as in mill feeds, is an important factor in the oats market. Oats prices are the highest in history at about 90 cents a bushel. Human consumption, which accounts for the present levels of corn, has had a bullish influence on the oats trade, rolled oats manufacturers reporting unprecedented sales of their product for human food. Oats are moving to market in a large volume, and feeders are eager buyers, substituting this coarse cereal for corn on an extensive scale. The United States Army Quartermaster's Department is purchasing oats in large amounts for feeding horses and mules of our national army, as well as in the armies of our allies in Europe.

Feeders of livestock are confronted with a peculiar problem in the mill feed situation, the supply being very low in the face of an excellent demand and the prices at the highest level ever known. Millers have been forced to curtail their grinding operations, and naturally the output of mill offals is relatively smaller. About 100 flour mills in the Southwest were forced to close recently either because of a shortage of wheat or because of having already

ground 75 per cent of the wheat allotted by the United States Food Administration. The extraction of flour from the wheat berry has been increased to 74 per cent, millers being required to obtain 196 pounds of flour from 264 pounds of wheat, while formerly 272 pounds of wheat were used in extracting 196 pounds of flour.

Naturally in this changed milling formula, the supply of mill feeds has been reduced. The only low grade flour now made by millers, as a result of recent orders by the Hoover Administration, is a 5 per cent grade, and millers are not allowed to sell this as animal feed, but must blend it with 95 or 100 per cent of flour for human consumption. Heretofore millers mixed their low grade flour with the feeds in order to enhance their value. Advice from breeders of pigs and from dairymen indicate that the feeding value of mill feeds has decreased, the protein and fat content being lighter, thereby forcing increased consumption. Maximum prices have been fixed on mill feeds, the price in Kansas City, in 100 pound sacks, amounting to \$1.60, brown shorts \$1.70 and gray shorts \$2.05. A few days ago, profits of brokers, jobbers, and retail interests were fixed, and no increase in prices will result from the diminishing supplies. Practically no middlings are being made, the 5 per cent flour containing the bulk of the middlings.

The situation in cottonseed and meal is similar to that in bran and shorts, the production of cottonseed products being far insufficient to meet the enormous demand. Some time ago the Food Administration and manufacturers reached a voluntary agreement on fixed prices, amounting to \$56 to \$58 a ton on 41 per cent protein meal; \$54 to \$56.50 on 38½ per cent, and \$52 to \$53 on 36 per cent. Prices are on a basis of Kansas City. An idea of the shortage of cottonseed products is contained in the statement by a large Oklahoma and Arkansas crusher that his millers are unable to supply more than 10 per cent of the orders of stockmen, and the situation with other mills is similar. Lack of tank cars to move cottonseed oil is hindering the operation of mills, and earlier in the year there was a shortage of coal. Another important factor in restricted operations recently was the reluctance of cotton planters to market their seed, so for a long time mills were practically shut down. The market was further injured by an embargo against shipments of cottonseed cake and meal from Texas, the Food Administration attempting this as a plan to save cattle from starvation, due to drouthy conditions in the Lone Star state. Many mills are only at the present time filling contracts made last October, November and December.

Feeders are watching with keen interest the trend of hay prices. All varieties, especially alfalfa, are selling actively at the highest levels in history. Alfalfa is in demand from the Southwest, where drouth has persisted for about 18 months. Dairymen, too, are using alfalfa in larger quantities, partly the result of a shortage of other feeds. The United States and allied armies should not be overlooked as buyers of hay, purchasers for Uncle Sam being required to buy hay for 325,000 horses and mules in this country, besides supplying hay for a much larger number of animals on the battlefields of Europe. Alfalfa, timothy and prairie are the principal varieties taken by the army.

Record prices are being paid for hay, \$33 a ton for alfalfa, \$29.50 for timothy, \$26 for prairie, and \$27 for clover. Even straw should not be overlooked, for there are reports of increased feeding of this commodity, and sales have been made recently as high as \$13. These unprecedented prices are holding up in the face of heavy receipts at primary markets, and large importations from Canada. Mild weather in the Northwest—Idaho, Montana, Wyoming and other states—is permitting the shipment to market of huge quantities

(Continued on Page 36)

How To Save Baby Chicks

Firman L. Carswell, a big poultry raiser, Gateway Station, Kansas City, Mo., is giving away a valuable book which tells how to save, feed and care for baby chicks. Every poultry raiser should write now for a copy of Mr. Carswell's free book which contains important facts about White Diarrhoea and how to treat it.

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When Keeping Farm Records

Here's a Simple Plan That Every One Can Follow

BY J. R. UMMEL

IT IS agreed generally that book-keeping on the farm is a necessity. Farming is a business the same as banking or running a department store, and no person would think of conducting either of these establishments without proper records. The most observer often is deceived in farming operations without proper records. I have learned this from observation and practical experience in farming, and I am convinced that the farmer who does not keep some sort of records is likely to do much unnecessary and unprofitable work operating departments of the farm which are a total loss. So long as the total operations show a gain, the unprofitable operations often are not noticed.

It is a fact also that as soon as the farmer starts keeping records of the different enterprises of the farm he begins to plan and study his business more closely and becomes more interested. Consequently the drudgery is lessened. If the farmer finds that certain enterprises of the farm are not profitable he will take immediate steps to make proper corrections. These corrections should not be made hastily. For example, the dairy department may be running at a loss. By consulting the records it may be found that certain cows are not profitable. If, after eliminating the boarders, the profits are not what they should be, the trouble may be in the method of feeding or handling the product.

Why Books are Not Kept.

There are several good reasons why some farmers do not keep books. Farm accounts are different from those of the city merchant, especially if one goes into much detail and follows out the records of the separate farm operations. The storekeeper deals with actual figures; that is, he knows definitely what every article costs him and what he receives for it. His records are not nearly so subject to estimates or to variation in values as are those of the farmer. Farm records deal largely with estimated values, are influenced by particular conditions on the farm considered, and pertain not only to one enterprise but perhaps to a dozen. Lack of system is another reason why farmers have failed in keeping farm records. A convenient place of work is required to record the day's operations. Provide a desk, preferably one with a rolltop which can be covered and locked in order to keep the records in a convenient place so that a few moments' time can be applied to good advantage. On many farms a study room, properly equipped, has encouraged the son or daughter to do the farm bookkeeping, and a typewriter has encouraged the making and keeping of permanent records, showing comparisons by years. Another setback to farm record-keeping is the fact that farmers who have tried it, usually have used systems devised by city bookkeepers who do not know the conditions of keeping books on the farm.

The Accounts

When starting out to keep farm records, perhaps the first question which comes up, is "What accounts shall I keep?" This will depend on the information the farmer wishes to have, the particular conditions, and the time he is willing to give to book-keeping.

If he desires to know only the net profits made for the year as a whole, all that is necessary is an inventory at the beginning of the farm year and one at the close of the year. The difference between the two will represent the gain or loss for the year.

The proper time to take this inventory in this country perhaps is March 1. With a renter the date should ordinarily correspond with the lease. Certainly every farmer should take an inventory at least once a year. The form in which the inventory should be prepared is well covered in Farmers' Bulletins 338, 511, and 661.

Farmers' Bulletins Will Help.

In all cases it is necessary to divide the inventory into two separate groups commonly known as resources and liabilities. The sub-accounts under resources are usually farm land and improvements, dairy cattle, hogs, horses, poultry, machinery and tools, farm products, building materials, accounts receivable, bills receivable and cash on hand and in banks. Under liabilities would be listed accounts payable, bills payable, and farm mortgages. The difference between the resources and liabilities is commonly known as present worth. The taking of annual inventories enables the farmer to know accurately his net worth thus obtained with the net worth of the previous year, thus he can determine the loss or gain for the year as a whole. But in order to have information as to which of the departments of the farm contributed most toward the gain or loss, additional records are necessary. No special forms are needed to obtain a fairly close estimate of the results of each department.

Any form of ledger may be used for this purpose. On the debit or left side of the page should be recorded the amount paid for seed, fertilizer, hired help, and all other expenses, including depreciation on equipment and tools. Some valuable information can be obtained with regard to the estimated life of farm machinery from Farmers' Bulletin 338. The farmer should also charge to every account his own time, that of any members of the family, and the time of his own teams at current prices for similar work. He should, however, keep his own time and that of his family and teams separate from hired help, as this information will be valuable later on as he becomes more expert in bookkeeping. On the credit, or right, side of the sheet should be recorded the products sold, and on completion of harvest or at the close of the year the amount of products on hand. The two sides should then be totaled, and the difference will either be a debit or credit and will show what profit or loss the farmer would have made had he hired all the help.

Great care must be taken so that no items will be omitted. It is not expected, however, that the sum of the net results of the individual accounts kept will check the net results shown by the inventory at the close of the year, but they will be close enough to give the farmer much valuable information.

Use Care

Bookkeeping is sometimes made more complicated where the operator and landowner form a partnership. In this connection I would refer you to the forms illustrated in Farmers' Bulletin 661.

If it is desired to have more exacting records than thus far illustrated—that is, if it is desired to control the distribution to the different departments of the farm by the exact receipts and expenditures and cash balance—special forms should be used for recording receipts and expenditures. The form I have found most satisfactory is commonly known as the multiple column Journal, which is provided with a separate column for every crop department of the farm, as shown in the accompanying forms:

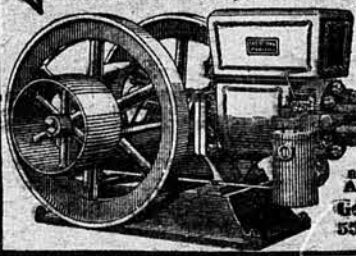
CASH ACCOUNT—RECEIPTS									
Date	Received from	Dairy	Hogs	Wheat	Oats	Poultry	Misc.	Total	
Jan. 2	From creamery, cream and eggs	\$ 8.10				\$1.40		\$ 9.50	
Jan. 10	From elevator, 100 bu. wheat and 200 bu. oats			200.00	150.00			350.00	
Jan. 20	From creamery, cream	9.00						9.00	
Jan. 27	From Packing Co., hogs, 8,500 pounds		1,275.00					1,275.00	
Total for January, 1918		\$17.00	\$1,275.00	\$200.00	\$150.00	\$1.40		\$1,643.50	

CASH ACCOUNT—EXPENDITURES									
Date	Paid to	Dairy	Hogs	Wheat	Oats	Poultry	Misc.	Total	
Jan. 8	J. Smith, hired help	\$ 8.00	\$ 6.00			\$ 3.00		\$30.00	
Jan. 10	Owens Merchandise Co., December bill	1.50	4.00					17.60	22.50
Jan. 15	Ames Hardware Co., December bill	2.20						1.50	3.70
Jan. 18	Dr. Sommers, care of son					10.00		10.00	
Jan. 25	Wm. Jones, hauling wheat			6.00				6.00	
Total for January, 1918		\$11.70	\$10.00	\$6.00	\$3.00	\$41.50		\$72.20	

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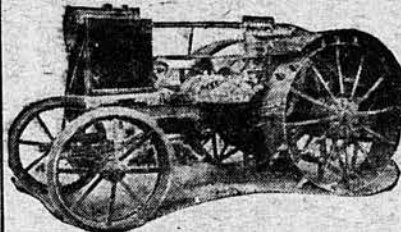
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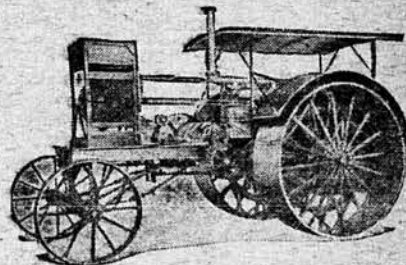
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WE BOTH LOSE MONEY IF YOU DON'T SELL YOUR HIDES TO T.J. BROWN 126 N. Kansas Ave., TOPEKA, KANSAS

Green salt cured hides, No. 1, 12c. Horse hides (as to size) No. 1, \$5.00 to \$6.25 (as to size) No. 2, \$4.00 to \$5.25 (as to size) No. 2, \$4.00 to \$5.25

Market on cattle hides very unsettled. Write for prices and shipping tags. Payments made promptly.

\$100.00 IN GOLD GIVEN

How Many Words Can You Make

This puzzle is a sure prize winner—absolutely everyone in this club wins a prize. It is not hard, either—just a little ingenuity and skill. The puzzle is to get as many words as possible out of the letters herewith given. Use only the letters given and only as many times as they appear in this ad. For instance, the letter Y appears three times, so in all your words you must not use Y more than three times. If you use Y twice in one word and once in another, you cannot use Y in any other word, as you have already used it as many times as it appears in this advertisement. It is not necessary that you use up all the letters. The puzzle looks easy and simple, but if you can make as many as twelve words, send in your list at once, as the person winning first prize may not have more than that many words.

OUR OFFER

We are the largest magazine publishers in the west and are conducting this big "everybody wins" word building and prize contest in connection with our big introductory and advertising campaign and want to send you sample copies and full particulars as to how you can become a member of this contest club and share in the \$100.00 in gold and the other valuable premiums. We give 100 votes in the contest for each word you make. To the person having the most votes at the close of the contest we will give \$50.00 in gold; to the second highest \$20.00 in gold; to the third highest \$15.00 in gold; to the fourth highest \$10.00 in gold, and to the fifth \$5.00 in gold. In addition to these prizes, we are going to give away thousands of other valuable premiums of all kinds, too numerous to mention in this advertisement. NOTICE: Every new club member this month also receives a beautiful Genuine Gold Filled Signet Ring, guaranteed for 5 years free and postpaid just for promptness. Anyone may enter and bear in mind, there is absolutely no chance to lose; POSITIVELY EVERY CLUB MEMBER WINS A PRIZE. If there should be a tie between two or more contestants for any of the prizes, each tying contestant will receive the prize tied for. Get your share of this \$100.00. Send your list of words TODAY.

CAPPER CONTEST CLUB, 630 Capper Building, TOPEKA, KANSAS

A N O E O Y R S
T F L M I M R A
O O A I N M T O
M O F I A E B L
Y A P B I N O H
G N O S A A O T
T A A C R B O Y
A R M N A N T W

TOM McNEAL'S ANSWERS

Teacher's Contract

Is a school board in Kansas legally bound to compensate a teacher for the full nine months instead of 8 1/2 months at the expiration of the school year, when the said school board ordered a school closed a week on account of a smallpox scare? The teacher's contract reads that he shall teach nine months of 20 full days to the month.

The teacher can collect for the full nine months.

Stopping the Ditch

There is a deep ditch between A's field and the township road. A cuts a hedge along his field and piles the brush in the ditch. Will A have to remove the brush if the water does not overflow into the road? C. E. J.

I assume that the ditch is a township ditch. If so of course A has no right to throw brush into it and obstruct it.

Insurance

A man dies in Kansas after willing his property, real estate to his children by a former wife, but gives his widow the use of his estate during her life. The widow keeps up the insurance on the buildings. The house catches fire and burns down. To whom should the insurance be paid, the widow or the other heirs? The property is insured in the name of the widow, who also was made administratrix of the estate but has never made a final settlement although several years have elapsed since her husband's death.

I am of the opinion that the widow is entitled to collect the insurance.

Settlement of an Estate

My grandfather died 10 years ago. His only relatives were my father and I, his granddaughter. My father has been dead for five years. My grandfather left no will and I have never heard how the estate was settled up. Would not this estate rightfully belong to me? What steps should I take? Has it been too long delayed to get anything? A. Z.

You do not say where the estate is located or where your grandfather was at the time of his death. The laws of distribution vary in different states. If the estate is in Kansas you are en-

titled to all of it under the facts as you state them.

You have delayed a long time in looking after your interests but it probably is not too late. Write to the probate court of the county in which your grandfather died and find what if anything was done about the administration of his property and file your claim as an heir.

Rights of the Survivor

A and B marry. A had no property. B had. Can A take the property from B's children? Can he take half and then come in as an heir and take half? Can B's heirs demand their share or can A hold the property while he lives? J. B.

The surviving husband inherits half of his wife's estate. Her children inherit the other half. They have a right to demand a division of the estate.

A Girl Reaches Majority

Isn't a girl legally of age at 18 to do as she chooses regarding marriage, working or leaving home, in fact for every purpose except voting? R. F. N.

If the young lady reached the age of 18 prior to May 26, 1917, she attained to the rights of majority, otherwise not. May 26 was the date of the going into effect of the statute changing the age of majority for females from 18 to 21.

Hog Tight Fence

A and B live on adjoining quarter sections. The division fence is partly hedge and partly barbed wire. If A should wish to fence his farm to hold hogs or sheep would B have to supply half the woven wire for the division fence if the hedge was not dense enough to turn hogs or sheep? E. F.

If the voters of your township have voted to permit hogs to run at large A can compel B to build his share of a hog tight fence, otherwise not.

Her Property

I married my second husband nine years ago. I had some property in town. He says that he can keep me from selling and can draw half of it. My first husband died, leaving me with six children. All of these are married. My husband has two boys but we have always gotten along well. I was told before I was married that my husband

could not interfere with my property. I do not wish my children to be cheated out of it. What is the law in Kansas governing such cases? MRS. B. S.

If your property consists of real estate you cannot sell and give a good title without your husband's signature to the deed. You can dispose of your personal property as you please without his consent and you can manage your real estate as you please without his consent, but you cannot sell it and give a good title to it. In case of your death before his he will inherit one-half of your property.

Feeding Horses to Hogs

What is the law on killing horses and feeding them to hogs? How can you stop it? We have a neighbor who has killed about 25 head already this winter and does the same every year. You can hardly pass his place for the smell and it is on the public road. A. R.

If the horses belong to the man and if he wishes to butcher them and feed them to his hogs I know of no law to prevent his doing so. If, however, he leaves the decaying carcasses where they become a menace to the public health, that is an entirely different matter. Complaint should be made to the county health officer.

Damages by a Dog

A has a dog which runs out to the road and barks at every vehicle or car that comes along. B and D come past in a buggy. The dog runs out at the horse, causing her to smash the buggy and throw B and D both out, hurting B's leg and hip. Could B and D collect damages? SUBSCRIBER.

Yes, provided of course that A is not execution proof.

Cutting Hedges

The county commissioners of this, Franklin county, advise that they will order all hedge fences in the county cut down to 4 feet, said fences to be cut by the landowners and if not cut by the landowners then the county commissioners will have them cut and the expense charged to the landowners. Hedges in this township were all planted by the men who then owned the land. On section lines the hedges are 66 feet apart. The widest road is but 60 feet and some are but 40 feet, so the hedge fences are all on private property and at least 3 feet outside the road line and some are 13 feet outside. We grow our hedges for different purposes: protection from the wind, posts, timber, and the like. Can the commissioners compel us to cut

these hedges down to 4 feet, or cut them down and have the expense added to the taxes? M. A.

If Franklin county has voted for the hedge trimming law the commissioners have a right to order the hedges cut down, otherwise not.

Ownership of Hedge

Can a man by buying a place hold the hedge between two farms? It has been cut. The farm has been sold several times since the hedge was set. Half of the north half has been fenced hog tight, a barbed wire was put on. It was sold lately. The purchaser says that he can cut all the hedge, take the posts and wood and make us put up another fence. His land he farms, ours is in pasture. The fence is an old hedge and is worth quite a bit. E. B.

I am in doubt as to the facts. If the hedge is on the line it belongs to the one tract of land as the other, and cannot be cut down without

While the Breweries Run

During a winter in which schools were closed all over the land, factories shut down for 10 consecutive Mondays in more than half the industrial United States, hours of business restricted, and cities left in darkness at night, in order to save fuel, it is interesting to learn that one big American brewery, the Anheuser-Busch plant, admits in an advertisement that it uses 325 tons of coal a day, or about 100,000 tons a year.

Statistics gathered by the Anti-Saloon League show that the breweries of the United States consumed 7,264,450 tons of coal in 1916 to make 58 million barrels of beer. It took 181,611 cars to carry coal to the breweries and 195,280 cars to supply them with grain. If only half the beer the breweries made was shipped it must have taken 366,151 cars to transport it.

All together it took 12,384 trains of 60 cars apiece to haul all the materials required by the brewers in 1916. Add the coaling of these trains to the amount of coal required to operate the breweries and the discovery is made that just the brewery end of the beer business requires a consumption of 8,454,450 tons of coal a year.

Here are three vital necessities of wartime being used in enormous quantities by a worse than useless industry. What about the policy of permitting such an unessential business as the liquor traffic to operate at all while we put the entire economic system of the Nation out of joint by closing down industries necessary for the welfare of the people and the conducting of the war, and stop the pay of thousands of needy wage-earners, that the breweries virtually may burn their thousands of tons of coal a day and waste tremendous quantities of foodstuffs.

the consent of the other person. If it is on the land of the man who wishes to cut it down, he has a right to cut it down and compel his neighbor to build half of a partition fence.

Insurance Policies.

I have three insurance policies made out to myself. Can I give those to my children as you would any other property? MRS. E. A.

Yes. You had perhaps better have the policies changed so as to run to your estate. Then if you should die before the policies mature they will be distributed as the remainder of your estate is distributed.

Should be Administered.

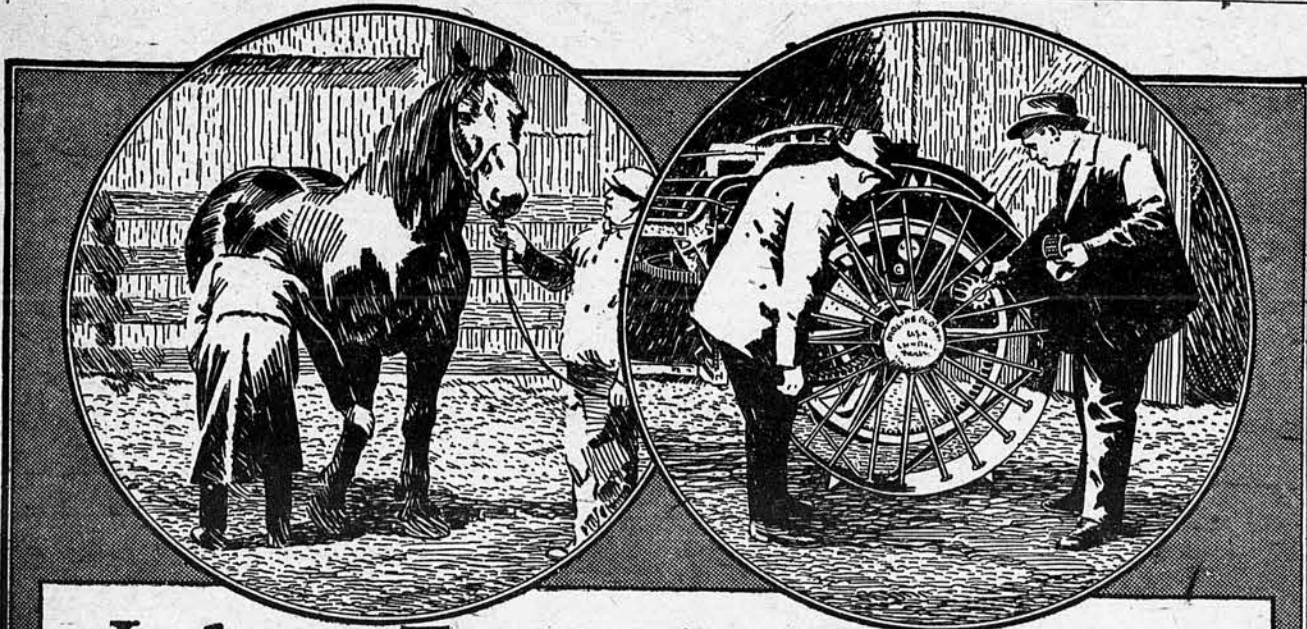
1. A woman owning real estate dies leaving a husband and a minor child. They live in the property which is in Kansas. There was no personal property in the name of the deceased. Should the estate be administered and the father appointed administrator or could it be allowed to run until the child reaches his majority?

2. And then would a joint deed be a legal transfer of the property? W. W. H.

1. In a case of this kind it might seem that an administration of the estate ought not to be necessary, but our law requires it. Unless he is disqualified in some way the father should be appointed administrator of the estate.

2. Yes.

One of the main advantages of draft blood is an inherited disposition to work at a moderate pace and to submit to restraint from the collar and the bit without fractious fuming and fighting at the driver.



Judge a Tractor by its Bearings

You feel a horse's joints before you buy him. If he is spavined or stiff-jointed you wouldn't take him even at a bargain.

Be just as cautious in the purchase of a tractor—judge it as you would a horse—look at its bearings—the joints of the machine.

The tractor with plain or other unsuitable bearings is subject to stiff-joints—stiffness caused by lack of lubrication or poor adjustment.

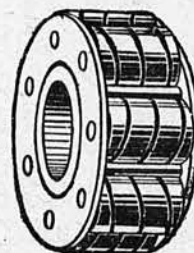
Hyatt Roller Bearings make sound joints. They reduce friction—overcome lost motion—eliminate wear and the necessity for frequent oiling or adjustment.

Tractor owners and tractor makers, both, know the value of uninterrupted, long lasting service. That's why seventy-eight tractors have Hyatt Roller Bearings built into them today.

Be sure the tractor you buy is Hyatt-equipped.

HYATT ROLLER BEARING COMPANY, Chicago, Illinois
Tractor Bearings Division

HYATT ROLLER BEARINGS



What Shall I Do, Doctor?

BY DR. CHARLES LERRIGO.

The Doctor's Charges.

I have a very interesting letter from a reader who wishes to be fair to her doctor, but at the same time fears that he is overcharging her. He came to her house for a confinement, traveling over miles of bad road, heavy with snow, and making the last mile on foot. He stayed on the job until all was over, nearly 36 hours, as it was a slow, difficult case. Afterward, he made two additional visits, under better weather conditions, that did not take so long. It is needed that he did good work, but his reader has to look close after her purse and wonders if his charge of \$90 is not too heavy, saying "We know the roads were very bad, but why should he charge his patients for the condition of the roads? Is there any limit to the amount a doctor may charge in a confinement case?"

I am glad to discuss this because I think I am able to look at it from both sides. I know that such bills look enormous to the person who has to do a whole month's work to earn the amount, and I know also that if that doctor could have been excused from that trying, wearisome trip, and that tedious, long waiting case, he would gladly have waived the fee and given a handsome bonus, besides. There is no legal limit to the amount a doctor may charge for a case excepting that the fee must be reasonable. A court will not attempt to hold a doctor to a set figure, because it is easy to demonstrate that the work may vary greatly in different cases. Some doctors will agree upon a figure beforehand, but others protect their own interest by specifying that such fee is effective only if the case is normal, and the wide personal experience has convinced me that this is only just, for nothing takes more out of a doctor than long, wearing, difficult confinement cases.

Why should he charge his patient for the condition of the roads? He doesn't. He must always be borne in mind that a doctor's charge is not for a case, nor for a cure. He charges for his time and effort. Having done his best, he is just as much entitled to his fee if the results are poor as if they are good. If you are so unfortunate as to require the output of his time and effort at a period when bad weather makes the roads impassable, more time is consumed and more effort required and you therefore buy more of it and must pay a higher price. The average reader will agree with me in this, for very few think country doctors overpaid, even tho the bill may seem tremendous at the time of settlement. There is just one word more to say. It constantly happens that doctors must give their services to persons so poor that the payment of a perfectly fair fee seems ruinous. Let such a person explain the situation to the doctor, and usually the bill will be reduced to a charge that can be met.

Tonsillitis and Catarrh.

I have a sister that I am much worried about. She has been troubled with tonsillitis and catarrh more or less ever since she was 2 years old and she had her tonsils clipped when about 20 years old, but the doctor only clipped the tops off, leaving a portion of them in, and she had several spells of tonsillitis after that. She is now 38 years old and she hadn't had any particular trouble for 10 years until last November. About Thanksgiving her throat seemed to lose its feeling and when she swallows, she says she can't tell that she has a throat. The doctor said she had a bad stomach trouble, as she belched gas, and her throat being like it was, seemed to choke her. She thinks the nerves in her throat are paralyzed. She says the muscles in her throat don't work right. Do you think that the nerves could be paralyzed? Please give me your opinion. She is doctoring with a doctor, and he says it is catarrh of the throat, and it has gone to her stomach and that is what caused the better her throat will get better. Her stomach is better, but her throat doesn't seem to get better. Do you think her doctor could be a fake? I am writing you for my own information.

OKLAHOMA READER.

A decade ago it was considered good practice to remove only the protruding portion of the swollen tonsil, but throat specialists now remove the gland entirely. This may be just the treatment your sister needs. The nerves of the throat may be affected, but they are not paralyzed. Your doctor may not be a "fake," but his judgment and mine do not agree. You must remember, however, that doctors often say absurd things to patients, with the idea of offering an explanation in language fitted to the patient's comprehension.

Why Tractor Makers Recommend Oliver Plows to You

The tractor maker knows how important the plow behind his tractor is. His success as well as yours largely depends upon your getting just the plow that best meets your soil's needs.

And he knows that Oliver Tractor Plows assure perfect plowing. His confidence rests upon Oliver's sixty years' of progress that have made Oliver the plowman's choice the world over.

He knows, too, that wherever you are, Oliver nation-wide service is ready to take immediate care of your requirements and assure you constant, maximum plow performance and results.

Two Bottom Plow \$175
Three Bottom Plow \$220
Four Bottom Plow \$310
Plus Freight Charges

Oliver Chilled
Plow Works
South Bend, Ind.



OLIVER

Scientific plow making began fifty years ago when James Oliver invented the famous Oliver Chilled Plow. Now the Oliver Plow Works is the largest exclusive plow factory in the world, well worthy of the title "Plow Makers for the World."

Grange Notes

BY EVE GASCHE

By D. M. Lauver, a Member of the Grange in Miami County.

The first urgent call of our government when we entered this world war was for a greater food supply, increased food production, in short a speeding up of our activities. At a time when our country and our allies are calling for more food, when our boys are in the trenches to stay there until autocracy is overthrown and democracy is made safe, it should be the special duty of every farmer and farm laborer to give a good account of his time. We are facing a crisis, not only in our country's history but in our lives as well. Let us face it as men, with a steady purpose to do our duty in every spot and place, knowing that there is a silver lining to every cloud, looking forward to a time when the clouds of war shall have rolled away and the sun of peace shall again shine forth.

Democracy emphasizes the individual right to life, liberty and the pursuit of happiness. With this in mind, the rights of the individual are more in evidence than his duties. What he is to get is more appealing than what he is to give. In the enjoyment of his blessings, he is apt to overlook what makes his blessings possible. Democracy yields individual rights but balances them with individual duties. We have not been keeping the balance well. Individual rights have been working overtime.

Responsibility for others and with

others has been a loafer. Now we are in a sorry plight. We must put responsibility to work. Civilization is at the crossroads. Shall it go the way of tyranny or the way of freedom? It depends not alone on our military forces, but on our inner life, on unity in our home trenches. We can't leave it entirely to the state in its official capacity, but we must, in the places where we live, furnish the conditions on which they base their action. Individual responsibility is the safeguard of the nation.

The personal question for us is, am I emphasizing the idea of giving or of receiving? The individual must unite with the great mass or lose. We must throw ourselves into the great national purpose or be a Benedict Arnold. Be a real factor for unity in your home community. Crucify all personal ambition, and enthrono the Christ spirit. A new chapter is being fought out in Europe. In the midst of death there is arising the life of a new era for mankind. Out of this cruelty and carnage will come a new creation. Let us give our best to our country.

Fair Prices for Farmers

The prices of farm products must be fair if maximum production is to be obtained. Governor Capper has urged this ever since the war started. Here is a letter which he sent to the Food Administration on this subject a few days ago.

Honorable Herbert Hoover, Federal Food Administrator, Washington, D. C.

Dear Mr. Hoover: Doubtless the insistent demand for price regulating made by farmers and stockmen has become an old story to you. The en-

closed letter, which I am taking the liberty of sending you, contains so many pertinent questions and so many suggestions of sound sense that I am asking you to give it your careful consideration. E. W. Adams has extensive farming and stock-raising interests in Kansas, and I believe his views are representative of those held by Kansas farmers and stockmen as a whole.

I do not think it necessary to present further evidence that the farmers and stockmen of Kansas are patriotic. United effort to increase food production is being made, in the face of the most depressing conditions that have confronted us in many years. The situation becomes still more difficult when, in addition to these conditions, our farmers and stockmen face actual losses and believe that their interests are not being safeguarded as they should be.

Within the last few days it has been my privilege to talk with many representative farmers and stockmen of Kansas and its adjoining states. They are of one opinion, and that is at the present prices of corn and other feeds necessary in pork production, the man who is feeding hogs faces actual loss. This also is true of the cattle feeder.

The prices being paid the producer are not sufficient to provide a profit when present feed prices are paid; and with the price of corn steadily advancing while pork prices are just as steadily declining, it is not to be wondered at that the farmers of Kansas and other states are sending thousands of light-weight hogs and cattle to the packers instead of finishing them as they should be finished; nor is it to be wondered at that instead of increasing the number of bred sows and gilts kept

on the farms the average farmer is disposing of his surplus stock and is increasing his corn acreage, believing that with corn to be somewhere around the \$2 mark next fall, much greater profit can be realized thru the sale of grain than thru feeding operations. It is plain that unless something is done to stimulate pork production and put a stop to the selling of sows we shall face an alarming shortage in meat production next year.

Representative farmers, members of the National Farmers' association, in convention at Kansas City February 22 adopted this resolution:

"The National Farmers' association, after due consideration, declares the \$15.50 minimum, or controlling price on hogs at the Chicago market, is materially below the actual cost of production. This figure is already depressing production and is about to imperil the future supply so necessary for the successful prosecution of the war. Owing to the radical changes in corn cost occurring since the early days of November when hog prices were decided, we, in the name of justice, both to the farm and the war supply, insist that hog prices be at once readjusted."

A similar resolution was adopted last week by the Kansas State Live Stock association, one of the strongest producers' organizations in the West.

These resolutions undoubtedly express the sentiments of men who have not only given the situation careful consideration but also are engaged in actual farming and feeding operations. It seems to me, Mr. Hoover, that such action must be taken, and that this action should not be delayed. The farmers' interests must be safeguarded if only in behalf of our most vital national interests.

With fearful consequences before us, if we fail in our food supply, I feel we are justified this year in going almost to any lengths to guarantee to our producers of food the cost of production and a liberally fair profit added, as virtually has been done in the case of other industries. And this guarantee will have to be sufficiently liberal to meet fully and to compensate for widely varying conditions. Some definite and sufficient promise should be made and made soon.

With a minimum price set on wheat and a minimum price set on hogs, it may be necessary to set a minimum price on corn and cattle to safeguard the breeder and feeder of cattle and hogs. If this is done, the minimum in each case, in my estimation, should not only prevent the deplorable losses from which farmers and stockmen undoubtedly are suffering, but should make it possible for them, and well worth their while—for pecuniary as well as patriotic reasons—to do their very utmost to increase their output in every possible way.

I do not see how we dare do otherwise than make farming and stock raising unquestionably profitable in this crucial year with everything depending on a food supply which under no possible circumstances can exceed our needs.

Respectfully,
ARTHUR CAPPER,
Governor.

Abnormal Prices for Feeds

(Continued from Page 32.)

of alfalfa hay. A year ago the Northwest was a heavy buyer of hay, the winter of 1916-17 in that territory having been severe, with large losses of livestock. The Kansas City hay market is receiving the bulk of alfalfa hay from the Northwest. A year ago Kansas City sent hay into that area.

Alfalfa molasses products, alfalfa molasses feed and alfalfa grain molasses feeds, tho not in a position similar to that of corn, mill feeds, cottonseed meal and oats, are in good demand, with relatively low prices being asked by manufacturers. Stockmen are substituting alfalfa molasses products on a large scale for bran and shorts, corn and cottonseed feeds.

Feeders never before experienced a period in which a study of general market conditions prevailing on feeds promised greater returns in their operations. Despite difficulty in obtaining shipments on railroads, the feed markets must be watched more closely by all who handle livestock.

Usually the pig eating sow is the result of bad feeding.



Replace Men and Increase Farm Incomes with E-B Power Farming Implements

E-B Power Farming Machinery is extremely simple and particularly designed for operation by the engineer without help. Fewer repairs and adjustments lighten work and reduce delays.

The dependability and endurance of E-B power implements enable you to get more out of the tractor. Among the many features which afford light draft and reduce fuel are the 1000 mile magazine bearings and the E-B Quick Detachable Share to be had only on E-B Engine Plows. These shares can be put on or removed in five seconds. They make it easy to work always with sharp shares. Less "drag" on the tractor. Better soil condition for bumper crops.

But the basic advantage of the E-B Line is the knowledge of how to build machinery that will stand up to tractor strains. No ordinary horse-drawn plow, disc or harrow is equal to tractor work. But E-B Power Farming Machinery will endure the wear and tear of soil cultivation behind the most powerful tractor built.

E-B Engine Plows—a size and type of plow for every tractor and soil condition.

E-B Harrows—disc and peg tooth in sizes and types for every service.

E-B Grain Drills—crop increasers for every territory.

E-B Manure Spreaders—the best spreader manufactured for use with a tractor.

E-B Gelser Small Threshers—save labor, save the grain and operate with small power.

The dependability and endurance of E-B power implements are due to a recognition of the added strains put on farm machinery when drawn by tractors, and 65 years of experience in farm tool manufacture. Increase your crop yields by using labor-saving farm machinery. Look for it under the E-B trademark. It shows the way to better, more profitable farming. Ask your dealer for E-B Machinery, or write us for field views and suggestions for use as prepared by the E-B Agricultural Extension Dept.

EMERSON-BRANTINGHAM IMPLEMENT CO., Inc.
Good Farm Machinery ROCKFORD, ILL. Established 1852



Notes from Johnson County

BY FRANK McGRATH

The water problem has been quite a serious one for the people in this county. However, when the last snow melted, it put water in the creeks and filled up some wells along the valleys. We had plenty of water all along from well we dug last October in the bed of the creek. The stock were driven from the fields to this well, which was one of the principal chores all winter. The last thaw filled up both well and creek bed.

Cattle and horses never did better on the stalks and straw stacks. The range was large; 80 acres of corn stalks, 40 of wheat, 20 of timothy and 20 of bluegrass have been at their disposal all winter. The volunteer oats in the wheat field was relished. The straw stacks have great feeding value. We placed the flax straw on the bluegrass straw. This kept the bluegrass prime and the stock liked it better than hay. We did not lose any animals from stalk poisoning.

A neighbor went in search of some hay here last week. One man asked 24 a ton for his timothy and clover hay; another priced his prairie hay at 21. As the prairie hay was baled and much closer to his farm, he bought 6 tons of it. Farmers are able to secure more cars for shipping hay than they could last month. Three cars of alfalfa were shipped from our trading point yesterday.

It got so cold in February that we had to quit plowing in the field. We are now hauling off our oats on an 85-cent market. The roads are fine. We can put on about 100 bushels by tramp and the grain down and using three boards. No corn has been sold from this farm yet. There never was so much grain hauled to our town as this spring. That is because shucking was late last fall on account of the corn not maturing at so early a date as usual. The elevator is paying \$1.50 a bushel for white corn and \$1.43 for mixed corn.

Johnson county is trying to solve the seed corn question. The schools are being called on to conduct tests under the supervision of experienced men. As yet we have done no testing although we have picked out several bushels of good seed ears. These will be tested to see if they will grow.

Before work became too pressing we had our pile of wood sawed. About 50 loads were sawed up in 8 hours. The charges were \$1 an hour and we figure we got a bargain. Nothing becomes so irksome as to have to cut a pile of wood every evening after coming in from the field. This wood is elm, oak and hickory mixed. People at our trading point offer to buy all we can spare and haul it for \$3 a load.

Machinery Increases the Yields

(Continued from Page 3.)

pumping outfits run by a tractor are now in use for the irrigation of 5 and 10 acres for gardens, small fruits, orchards, lawns and shade trees near Topeka. It has been proved profitable to raise water from 70 to 100 feet by engine power for the production of special crops.

Of course it is true that some of the developments of modern machinery which have been suggested may not work out. But some of them will; the "wise ones" who were knocking on the tractors five years ago have been proved wrong. In these days no one can tell where progress cannot be made. It is well to remember, too, that practically no new machine comes on the market without opposition. Almost every new invention has to fight established opinion. Whitney's first cotton gin was burned, because it was felt it would render the slaves useless and would bring on a serious economic problem. The reaper had a similar experience. Sixty years ago men waxed warm in debate considering the displacement of the ox by the horse. Previously men had argued that the tread mill was not God's way of working an animal. Margreaves' first spinning jenny was smashed by neighbors. Queen Elizabeth forbade the use of the knitting machine because she feared it would destroy the hand knitters' chance of living. At one time

the German emperor forbade the use of automatic devices on looms. In 1810 thousands of men marched thru England, from factory to factory, and town to town, smashing and burning every form of modern machinery they could find.

The point of the whole matter is that it will pay to study the farm machinery situation mightily closely for the next few years. We are passing thru a very rapid development, in which excellent progress is being made in some lines. It will pay to keep informed fully of this.

Altitudes in Kansas

The highest point in Kansas thus far determined and marked by the United States Geological Survey, Department of the Interior, is about 12 miles southwest of Syracuse and is 3,522 feet above mean sea level. A still higher point, however, established by the United States Coast and Geodetic Survey, is on the Kansas-Colo-rado State line, just north of the Union Pacific Railroad track; its elevation is 3,876 feet. The absolutely exact elevations of these points and about 600 others, marked by bench marks, are shown in the Survey's Bulletin 571, which contains the results of the work of spirit leveling in Kansas from 1896 to 1913, inclusive.

This bulletin is one of a series of similar reports published by the Geological Survey and should be of great value to surveyors and engineers who have occasion to use bench-mark elevations in laying out railroad or other lines, where accuracy of elevation is necessary. The report is, in fact, a guide to the bench marks that have been set by the government engineers, for while the numbers stamped on the bench marks represent the elevations to the nearest foot as determined by the levelmen, the bulletin gives the exact elevation of each point so marked to thousandths of a foot. The highest point in Kansas not marked is shown on the Cheyenne Wells topographic map. Its elevation above mean sea level is about 4,135 feet.

The greater use that is made of the results of the work being carried on by the government the greater will be the benefit to the people. The Geological Survey is doing its bit in this work by freely supplying the data it obtains, and until the edition of Bulletin 571 is exhausted a copy will be sent on request to the Director of the Survey at Washington, D. C.

The survey also will be glad to supply, on request, a small index map showing the published maps covering parts of Kansas and listing the publications that are available on the geology, mineral resources, and water resources of the state.

Here is a Real "Hog Talk"

(Continued from Page 12.)

ucts that pass thru the great packing houses of the United States is pork. The hog is king and the backbone of American agriculture, but today we are short 6 million hogs. Every farmer should increase his output of pork at least 30 per cent. Today the eyes of the world are on the battlefields of Europe. Already our American boys have joined the allied armies and hundreds of thousands are preparing to go, and we as good American farmers must do our bit. Herbert Hoover has said that "every hog is as important in winning the war as a shell, and every pound of pork as essential as a bullet." Empty stomachs are about as effectual as empty stomachs. This being the case we have a duty to perform for our nation as well as our allies.

Some may say "We will over supply the demand." There is no danger, for many years to come. We must grow pork to feed the millions of people in Europe, and we shall have to continue to grow pork for practically the entire civilized world for years after peace is declared or until the countries at war can replenish their supply of hogs. This being the case there is going to be money in the hog business for those who profit in producing well bred, properly fed hogs.



"The new 14-28 sure is a real OilPull"

THAT'S the way a Kansas farmer who bought one the other day, put it. And he hit the nail right on the head. Just consider this—in the 14-28 you're getting more than just a small, light weight, easily handled tractor. You're getting all that plus the well known Rumely OilPull dependability and long life—guaranteed ability to burn low grade fuel oils at all loads, under all conditions—automatic speed control—oil cooling. You're getting a real OilPull.

Nor have strength or power been sacrificed in making the 14-28 a light weight tractor. It's a big power outfit—capable of handling up to 5 bottoms in plowing, and to run a 24 to 28 inch thrasher with all attachments.

And you'll find the 14-28 extremely easy to handle. The platform is just a step from the ground—all operating levers are within easy reach and all working parts easy of access. It has an automobile steering device. It is short turning. An air starter is part of the regular equipment.

Then there's the patented shifting device that makes the 14-28 equally efficient on drawbar or belt, with no sacrifice in construction. The 14-28 catalog explains it fully—we'll just say here that it is one of the greatest improvements that has been made in tractor construction.

Get These Special Catalogs

A new OilPull catalog is just out. Besides covering every detail of the new 14-28, it describes the medium and large size OilPulls, the 18-35 and 30-60 h. p. Also you'll want the catalog of the new small Ideal thrasher—the 20x36 Junior—made especially to be run by a small size tractor. Just ask our nearest branch.

ADVANCE-RUMELY THRESHER CO.

(Incorporated)

LaPorte

Indiana

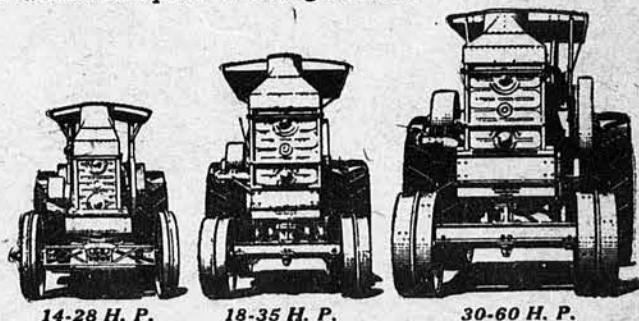
Kansas City, Mo. Wichita, Kansas

For your protection—a written guarantee

A tractor's ability to burn kerosene or other oil fuels can't be established by claims or "near" guarantees. You are entitled to know what kind of an oil burning outfit you are buying, and the only way to protect yourself is to demand a written guarantee such as goes with every OilPull.

Remember this. A tractor either burns oil economically—at all loads—under all conditions that a tractor must run up against—or it doesn't.

Don't be misled by word of mouth claims or guarantees that "talk but say nothing." Demand what you are entitled to—a fair and square written guarantee.



ADVANCE-RUMELY

A "W" For the Colts

BY GUY M. TREDWAY
Allen County

So many inquiries have been received regarding the construction and use of the "W" in "breaking" colts, mentioned in an article some time ago, that it has been too great a task to answer all personally. One came from Virginia. It may be of interest to the readers to learn that the mule that was becoming unmanageable about which we wrote is, after two lessons with the "W," as easily handled as any mule we have or had. Buyers have recently bought all the mules we have but this one and another.

The first step in the construction of the "W" is to strap a ring 2 to 3 inches in diameter to each fore leg just above the foot with the ring to the back. A hame strap will go around twice and buckle. Then get a 1/2-inch rope 25 feet long, one that has been used enough to be easily pliable. Tie a ring 3 inches in diameter in the rope far enough from the end so that it may be passed around the body and then tied into the ring. Be sure this knot cannot slip. If it should and the surcingle formed by the rope should slip the power will be lost and the animal may be able to get away. The rope is passed around the body just back of the fore feet and tied securely. The rope around the body must be rather tight, just loose enough so it gives the animal no pain.

The free end of the rope is then run thru the ring on one foot, back thru the ring in the surcingle, down thru the ring on the other foot, back again

thru the ring in the surcingle and so to the operator. Untie the animal, tie the halter rope around the neck, lead it out of the stable and let go the halter. The animal can easily be held by the rope which has been made into a "W" between the feet and surcingle. If it attempts to get away hold the rope tight. The animal will be brought to its knees. If it is then held tight a short time it will lie down. Come up to the animal from the back, catch the halter, the purpose for which it was left on, and hold its head off the ground. Climb on it, over it, and handle its head, legs, and tail. A lesson of considerable length while it is down will go far to make it think there is nothing you cannot do. It may be put down and handled more than once if it attempts to get away but more than twice is rarely necessary.

By tightening the rope or "W," but not enough to bring it to its knees, it cannot walk. In this way it is taught to stop at the command. It also can readily be taught to start at command. If the animal is wild we always go ahead and make it follow us. If it is used to being handled and is inclined to be "bossy" we go behind and drive it. A short, stiff buggy whip is excellent to guide it.

Two objects are to be attained. First, the animal must be made to believe it must and can do promptly anything we command, and second, it must not be surprised at anything we do. It will soon stand when quick motions are made, but care must be taken not to be rough. After a little training we always get on and ride. Should it buck it can be quickly controlled by

tightening the "W." If it is necessary to bring it to its knees we usually slide off, but it is made to get to its feet at once. But when it is on its feet we are on its back and usually have no trouble in riding. Training in these ways is given for half an hour or more if the animal is not ready to give up. The harness is then put on and it is hitched to a wagon to which another horse has already been hitched. The end of the rope which we have been handling is run thru the ring in the hame thru which the line runs and hence back to the wagon. It will be seen at once that we can control it from the wagon and that there is no danger of its running away or doing damage by plunging.

Sowing oats has been finished on this farm. The greater part of our neighbors do not sow until in March. Last year we finished February 22, broadcasting 1 bushel to the acre and harrowing it in. Fifty-three bushels an acre were threshed. Experience has convinced us that 2 bushels is enough at any time.

There had been no rain to the first of April. A bushel of alfalfa seed to 6 acres was then broadcasted and harrowed in lightly. The oats looked well before the harrow went over them. Neighbors passing along the road said we had killed our oats, but the roots had not been disturbed and no damage was done. This year we shall sow both clover and alfalfa in different fields of oats.

We have just now been recleaning and grading the clover and alfalfa seed threshed last fall. Clover seed has

sold readily at \$15 a bushel at our town, LaHarpe. There has been but small demand for alfalfa seed.

Usually this part of the country gets three cuttings of alfalfa. For a seed crop the second must be allowed to stand to mature seed. Clover makes only two hay crops anyway and nothing is lost when a seed crop is secured. However, neither will make seed in wet fall.

A Record With Hens

(Continued from Page 8.)

are, and then endeavor to fix the prices of poultry and eggs in accordance with the prevailing prices of feed and labor.

Everybody in the Food Administration, from Mr. Hoover down, fully appreciates the absolute necessity for a tremendous production of poultry during the current year, and from what I have seen of Mr. Hoover, it is fair to assume that he will look after the interests of the poultry raisers. The Food Administration has issued the statement, time after time, that it expects everybody to reap a reasonable profit on their products, and on the strength of that assurance, we should have no hesitation whatever about encouraging poultry producers of every class to produce to the limit of their capacities.

There certainly will be no lack of demand for poultry and eggs during the current year, and unless all signs fail it will not be long before we are eating them thru necessity rather than choice. It has been predicted on several occasions that it would not be long before there would be no meat for the general public, and this is not surprising when we know that the supply of hogs and cattle is decreasing so rapidly.

It also has been predicted that many communities may be called on to supply their own food on account of the inability of the railroads to adequately handle the war situation. We are facing a situation right now where it has been necessary for many railroads to discontinue the acceptance of all classes of freight except food and fuel, so that it is not difficult to imagine a situation where the railroads cannot even handle the transportation of foods for every community.

We trust that every reader will consider it his patriotic duty to present the facts I have given at every possible opportunity, with a view of inducing every farmer to increase his poultry production and, at the same time, induce others to increase the much-needed poultry supply by raising even a limited number of birds in the back yards.

A Profit from Phosphorus

Phosphorus has been applied to the soil with profit in tests at the college farm at Manhattan, according to R. L. Throckmorton, associate professor of agronomy in the Kansas State Agricultural college.

In the form of acid phosphate it has been tried for seven years at Manhattan on corn, wheat and alfalfa. Each crop was grown continuously on the same land, and phosphorus was applied every year. The soil treated is typical of Eastern Kansas upland.

Wheat yields were increased an average of 3 1/2 bushels an acre by annual applications of 80 pounds of acid phosphate. Corn land treated every year with 75 pounds of this fertilizer produced an increase of 6.7 bushels an acre. Alfalfa given 190 pounds of acid phosphate a year yielded 2.05 tons an acre, which was 36 ton more than alfalfa produced on untreated land.

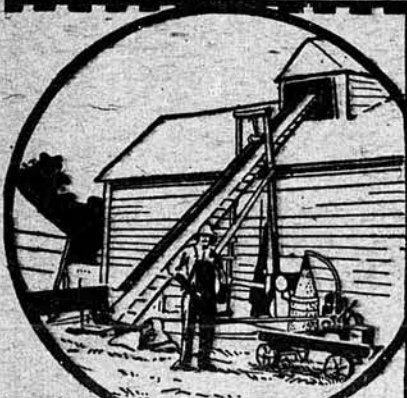
"Phosphorus is the only commercial fertilizer it usually pays to add to Kansas soils. It has been particularly effective on wheat and alfalfa," explained Professor Throckmorton.

Potassium has not been giving paying returns on any of the crops. Nitrogen applications have sometimes been followed by slight increases in yield, which are, however, negligible under proper tillage and rotation.

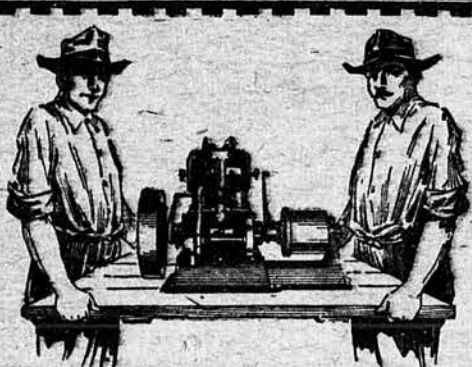
The time to apply phosphorus is when the crop is just ready to start growth. For wheat, fall is the usual time, but a quickly available form such as acid phosphate may be applied early in the spring.

Eat no wheat on Wednesday.

GET A Many Job Many Place CUSHMAN

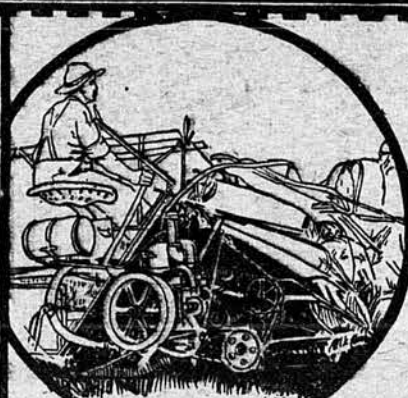


4 H.P. ALL PURPOSE OUTFIT - SAME ENGINE USED FOR OTHER WORK

EASY TO MOVE FROM JOB TO JOB
8 H.P. Only 320 lbs.
4 H.P. Only 190 lbs.

Cushman Motors weigh only about one-fourth as much, per horsepower, as ordinary farm engines, but are so well balanced and governed that they run much more steadily and quietly, like automobile engines. They do many jobs in many places, instead of one job in one place. Sizes up to 20 H.P.

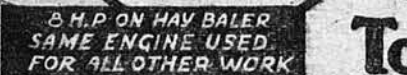
B. M. Hogen, Tenney, Minn., writes: "The 4 H.P. Cushman does everything on my farm, runs an 8-inch feed mill at the rate of 17 bushels per hour, pumps water, also does everything at the house, such as washing, churning, etc. At harvest time it cut 2 1/2 acres of grain. It's the best investment any farmer can make."



4 H.P. ON BINDER - SAME ENGINE USED FOR ALL WORK



4 H.P. TRUCK DOES THE HOUSEHOLD JOBS SAME ENGINE USED ON BINDER AND OTHER WORK



8 H.P. ON HAY BALER - SAME ENGINE USED FOR ALL OTHER WORK

To Do ALL Your Work

Instead Of A ONE JOB ONE PLACE Heavyweight

ARTHUR IRWIN, Copemish, Mich., writes: "I would like to see the description of your Cushman Light Weight Engines. I have a 9 H.P. engine. It weighs 2800 lbs. A good engine but a lot of metal to haul around."

What Cushman Motors Will Do
Cushman Gasoline Motors do all the farm work any farm engine can do; besides, on account of their light weight and steady running, Cushman Motors may be attached as a power drive on farm machinery, such as binders, corn binders, corn pickers, hay balers, potato diggers, etc. In this way they do extra work that other farm engines can not do. We furnish attachments. Book on Light Weight Engines sent free.

Cushman Electric Lighting Plants, with 4 H.P. Cushman Engine, make ideal plants for farm homes. With the Cushman Patented Self-Starter, a woman can start it. Ask for circular.

CUSHMAN MOTOR WORKS
814 North 21st Street Lincoln, Nebraska

FLOYD WILMOTH, Crawford, Kansas, writes: "Why buy an engine that weighs 8000 to 4000 lbs. to do the same work that one weighing 320 lbs. will do? The Cushman 8 H.P. has them all beat on account of its light weight, steady power, simplicity and durability, and has as much power as, or more than, any other 8 H.P. on the market, regardless of weight."

Before You Buy Any Engine Ask These Questions

How much does it weigh? If it weighs more than 60 lbs. per horsepower, what is the reason?
Is it throttle-governed? A throttle governor insures steady, quiet, economical operation.
Has it a good carburetor? The Cushman has the Schebler—one of the best made. Many so-called farm engines have no carburetor.
Has it a friction clutch pulley? The Cushman has one, that alone would cost \$15.00.

Light Weight

All Purpose

(234)

CUSHMAN

Farmers Met at Kansas City

The National Farmers' association, in the third annual convention assembled, at Kansas City, Mo., on the birthday of the Father of our Country, February 22, 1918, in patriotic spirit, adopted the following resolutions. They are expressive of the will and voice of the farmers assembled as delegates from the several states and sections:

We believe that for the best interests of the nation and all people and the cause for which we are now prosecuting the war, the prices of all meat animals should be regulated in accordance with the prices of grain and other feeds used to produce such animals. The cost of producing grass beef, medium corn beef and corn beef being taken into consideration, a price regulation should be fixed immediately to stop the enormous and destructive losses now being suffered by corn beef feeders.

The National Farmers' association, after due consideration, declares the \$15.50 minimum or controlling price on hogs at the Chicago market, is materially below the actual cost of production. This figure is already depressing production and about to imperil the future supply so necessary for the successful prosecution of the war. Owing to the radical changes in corn cost occurring since the early days of November when the hog prices were decided, we, in the name of justice, both to the farm and the war supply, insist that hog prices be at once adjusted.

Resolved, that inasmuch as the Food Control Board has fixed the price of some farm products that we, the National Farmers' association, demand that a price be fixed on the output of all factories and mines, together with the finished products of the output of the packing plants of this country, and also that the profits of retailers be added into and where exorbitant and unreasonable profits are being exacted that they be regulated by the government.

Resolved, that we protest against further fixing of prices on farm products until a schedule is at the same time established regulating prices on the articles the farmers must buy.

Be it resolved, that on all price fixing committees on farm products that a membership of more than 50 per cent of such committees be composed of actual farmers.

Resolved, that the government take the same steps toward lowering the price of rather by compelling the packers and others who are holding hides to sell them at a reasonable price, based on cost, thus supplying the alleged shortage, and we further resolve, that the hoarding of any product essential to the success of our war and the welfare of the nation be a criminal offense and punishable as such.

Resolved, that we oppose the payment to railroads of a profit on "watered stock" during the time they are under government management, and we favor freight and passenger rates based on actual valuations.

We recognize farm labor as being one of the greatest problems that now confronts the American nation, and we herewith endorse the action of the agricultural committees at Washington, asking Congress and the national administration to furnish all skilled farm labor, wherein it is possible to do so, as a means to help solve the farm labor problems.

We believe the requests and suggestions in the foregoing resolutions are just and for the best interests of the nation, and will stimulate a greater production of farm products and will materially aid in winning the war.

E. H. BULLOCK,
JEWELL MAYES,
L. W. REED,
C. O. RAINS,
A. MUNGER,
D. T. MADDUX,
T. H. DEWITT,
GEORGE E. MCCARTHY.
Resolutions Committee.

A Better Seed Situation

I believe the seed situation is going to be handled rather satisfactorily. The government is already arranging to spend nearly \$300,000 in the state for seeds, and its buyer is busy securing this seed. This is going to stabilize the price, in fact I believe prices are actually going down instead of up, due to the publicity given out by the committee of defense and as a result of the government coming in to buy the seeds. Practically 500 samples of seed come in here every day from all over the state to be tested for germination. Most of it is running very low in germination. The big problem is to persuade farmers to test their seed before planting in order to know that it will grow, and thus avoid making expensive mistakes.

K. S. A. C. W. M. Jardine.

Ten Apple Trees and Two Big Magazines for \$1.00

For only \$1.00 I will send you prepaid ten one-year old Apple Trees (2 Delicious, 3 Northwestern Greenings, 2 Jonathans and 3 Wealthy) and a two year subscription to the Household Magazine and a two year subscription to the Missouri Valley Farmer. Address, R. W. Macy, Box 20, Copper Bldg., Topeka, Kansas.—Advertisement

To Help With Sorghums

An excellent bulletin on the sorghums has just been issued by the Kansas State Agricultural college. This is Growing Sorghum in Kansas, and it was written by C. C. Cunningham and Ralph Kenney. It should be in the library of every man who is growing this crop. The bulletin can be obtained free on application to the college.

Before You Buy Your Plow, Harrow, Corn Planter or Cultivator

Know All About SATTLEY Implements

At Factory Prices

Mark and mail coupon today. We will immediately send you full descriptions and prices of the implements you want to know about.

We can save you money because we own and operate the Racine-Sattley Factories and sell to you direct at factory prices. When you consider that Sattley Implements are known and used from one end of the country to the other and for over 60 years have been recognized as strictly high grade standard farm tools, you can't afford to buy any implements of any make until you get our prices.

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Department 9026
Chicago or Kansas City

Write house nearest you.

Please send me full information on prices and special features of Sattley Implements I have checked. This places me under no obligation.

<input type="checkbox"/> Riding Plows	<input type="checkbox"/> Disc Harrows	<input type="checkbox"/> Listers
<input type="checkbox"/> Tractor Plows	<input type="checkbox"/> Drag Harrows	<input type="checkbox"/> Cultivators
<input type="checkbox"/> Walking Plows	<input type="checkbox"/> Harrow Carts	<input type="checkbox"/> Grain Drills
<input type="checkbox"/> Middle Busters	<input type="checkbox"/> Corn Drills	<input type="checkbox"/> Corn Planters

Name _____

R. F. D. _____ City _____

County _____ State _____





THERE'S DEJECTION FOR YOU! IF HE'D ONLY TURN AROUND AND READ MY BILLBOARD, HE'D BRACE UP, BUY A PLUG OF REAL GRAVELY AND TAKE AN INTEREST IN LIFE AGAIN.

Real GRAVELY'S

Chewing Plug

It costs most men LESS to chew Real Gravely than it does to use ordinary tobacco and they enjoy their Chew More. Quite a Difference between Pure, Rich, Leaf Tobacco made the Gravely Way and ordinary leaf gummed up with thick, heavy sweetening. A 10c. POUCH IS PROOF OF IT.

P. B. Gravely Tobacco Co. Danville, Va.



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21c PER ROD UP

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Don't buy until you get our prices and learn all about the best and cheapest fence to buy. Keystone Steel & Wire Co. 654 Industrial St., Peoria, Ill.



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GOPHER DEATH

Kills Prairie Dogs and Gophers of all kinds. Endorsed by State Experimental Stations 1400 tablets prepaid for \$1.25. Warranted. Raticide Tablets, 25c. Ask druggist or send direct. Booklet Free. F. D. Chemical Co., Ft. Dodge, Ia.

FARM WAGONS

High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated colors free. Electric Wheel Co., 30 Elm St., Quincy, Ill.

14 1/2¢ a Rod



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We will send 24 lessons in Beauty Culture and Manicuring free to all who send 10 cents to pay for three months' subscription to the Household, a big story and family magazine. Address The Household, Dept. B.C. 2, Topeka, Kansas

What Food Control Means

(Continued from Page 15.)

recommendation the Food Administration undertook, so far as the influences of these purchases made it possible, to use the purchases for the purpose of maintaining a minimum price for live hogs in Chicago, in order to prevent an undue fall in the price of hogs during the larger packing season and thus the discouragement of the producer.

Beyond the above, the Food Administration has no powers or intention to in any way interest itself in price.

Aside from these matters, the Food Administration has been actively interested in the elimination of profiteering and speculation in the distributing trades by regulating the profits to a pre-war normal basis in order that no greater tax should be placed upon the consumer by virtue of the high prices than bear a proper relation to producers' receipts. A still larger duty has been the maintenance of the even course of food distribution in these times of the greatest dislocation in which the Administration is called upon hourly to help in many directions. The law of supply and demand is not seriously disturbed by the condition of overseas transport and overseas market in any other food commodities than those mentioned. The law of supply and demand has been, however, seriously interfered with in the other

food commodities within the United States during the last three months by virtue of the cumulative shortage, irregularity and disturbance in railway transportation and consequent delay of months in marketing the harvest. It is considered, however, by the Administration that the solution to this situation should be obtained by the increased mobility of transportation and thus the restoration of the free flow of commodities.

Let's Put 'Er Over the Fence

(Continued from Page 14.)

milk and tankage, and they were running on green pasture.

"The pigs soon weaned themselves so I took the sow from them and fattened her up a little, for she was very thin with nine pigs suckling her. When she was fattened up a little, I took her out of the contest."

"I increased the pigs' ration about every week, but I didn't rush them, as feed was so high, but kept them in good growing condition, and they certainly did grow rapidly. I kept their sleeping quarters clean all the time. When they weighed about 150 pounds I had them cholera immuned. It didn't seem to make them sick only they didn't eat so well for two or three days. I never had a sick pig during the whole contest. On December 15, I weighed my pigs and found that I had

produced 2,165 pounds of pork, and with the sow's gain, while in the contest, made 2,165 pounds. I think the Capper Pig Club is a mighty fine thing."

W. W. Jones of Clay Center made me a pleasant visit last Saturday. Mr. Jones has proved to be one of the best boosters for the club and we are expecting big things from Clay county this year. He tells me that Elmer, who is in the army, writes him that he has gained 40 pounds since he enlisted. Mr. Jones was recently elected secretary-treasurer of the Kansas Duroc Breeders' association.

We have two more enrollments in the father and son contest—Mark Hulett and Funston Hulett of Linn county, and A. N. Thomas and Carl Thomas of Ford county. Both of the boys mentioned have been hustling to complete their county membership. Funston has lined up a number of boys in Linn and they only lack two boys of completing membership. In Ford county Carl still needs three boys to put them in the race for the special \$100 prize. Don't forget that if your dad is going to get into the father and son contest he must sign up an application today and have you approve it. In sending the entry for Jenkins & Son of Miami county Clark says this: "I think Dad will make a good club member. I have him interested and we are going thru with the contest work."

I'm quite sure that there will be quitters in the father and son club. Altho we expect to complete membership in a number of counties, one county, Marshall, has 10 boys enrolled since last report. Much credit for a complete membership is due Lovern Jellison of Villets. Lovern who is a 1917 member, has been hustling. "I'm mighty glad to know that the Marshall county membership is complete," Lovern told me when I notified him that enough names had been enrolled, "for we expect to make things hum in our county this year. John Shepard will be a near neighbor mine, and we have already picked out a swimming hole." That will soon go to the other Marshall county boys. Patrick Mulcahy, who won the Capper Corn Club championship, has lined up for pig club work. Here are the Marshall county members:

MARSHALL COUNTY

Name	Address
Lovern Jellison, Villets, R. 1	
Edward Peacock, Blue Rapids	
Wayland Bennett, Waterville, R. 1	
Steven Kotapish, Irving	
Arlie Smith, Vermillion	
Lawrence Mitchell, Villets	
Patrick Mulcahy, Lillis	
Wayne Hodges, Marysville	
Donnie Payne, Axtell	
Willis Jellison, Villets	

Some of the club members are having difficulty in finding contest sows. I should be glad to have every breeder who has good bred sows or gilts that he will sell for not more than \$100 his breeding stock with me. No member, tho, need expect me to purchase a sow for him. Securing a sow is part of the business training we are giving you and the contest manager has a few things to do anyway.

I'm getting a line on county leaders. You may expect some appointments before long, and the names of the county leaders will be given in the Farmers Mail and Breeze.

To Grow More Good Berries

(Continued from Page 16.)

amine every plant and destroy the borers. The cane borer makes itself known by the girdled tops. Cut off the canes well below the girdle and burn them.

Anthraxnose is one of the most widespread and serious troubles of raspberries and blackberries. The disease is very noticeable on the canes, where it causes purplish spots which change to grayish white and become slightly sunken. When the disease is severe these spots become so numerous as to cover large portions of the older canes, causing the bark to scale off and the wood to crack.

The simplest and one of the most important control measures is to cut out all old canes, as soon as the crop is harvested, and all young canes which are diseased, and burn them. Spraying, as follows, will serve to hold the disease in check: 1. Before the leaf buds open, with copper sulfate solution, 1 pound copper sulfate to 25 gallons of water. 2. When the leaves are out, with Bordeaux mixture. 3. After the fruit is harvested and the old canes removed, use Bordeaux again.

Cane blight is a fungous disease that attacks the raspberries, infecting the bark and wood at some local point on the cane, causing the part above to die. Thus, an entire cane or a portion of it may succumb. The disease manifests itself about the time the fruit ripens and is characterized by the drying up of the leaves and berries. Use the preventive treatment suggested in the case of anthraxnose.

Orange rust is a serious disease of blackberries and black raspberries and is recognized easily by orange-red pimples appearing on the undersides of the leaves. These burst and discharge spores which enter other plants thru the foliage, thus spreading the disease. The mycelium or root-like parts of the fungus finds its ways into the pith of the cane and even extends below the ground, becoming a perpetual source of infection to all future growth of the plant.

Since it is impossible to save an infected plant, it should be dug up and burned at once to eliminate the spread of the rust to healthy plants. Bordeaux mixture applied to the foliage will tend to prevent the entrance of the spores.

One of the first ways of increasing the profit in dairying is to reduce the cost of production.



Grip the Road

with

WEED Chains

Chained To the Road

That's what it amounts to when you use Weed Anti-Skid Chains. They have made the automobile an all the year necessity instead of an occasional passenger car.

Heavy, slippery, muddy country roads—almost impassable after rains—are responsible not only for thousands of automobile accidents and aggravating delays, but are **extremely treacherous** to life and property. Why not prepare for accidents before they happen—not after. It's wisdom to equip all four tires of your car with

Weed Anti-Skid Chains

Absolutely Necessary on a Farmer's Car

Slipping and skidding are entirely due to a loss of traction. Perfect traction on muddy, slippery, greasy roads is impossible without Weed Chains. Wheels equipped with Weed Chains automatically lay their own traction surface. Friction is effected without affecting the tires for they grip without grinding—hold without binding. They hold on like a bull-dog, always gain their ground, prevent side skid and drive slip. No other device has ever been invented that takes the place of Weed Chains. They are the **only traction device** which can be absolutely relied upon at all times and under every road condition.

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Because They "Creep"

Weed Chains **do not** injure tires even as much as one little slip or skid because they "creep," that is, continually shift backwards around the tire and thus do not come in contact with the tread at the same place at any two revolutions of the wheel. They are made of the best steel **electrically welded and highly tempered**. Sizes to fit all styles and makes of tires.

If you drive with chainless tires when the roads are slippery or muddy, you are taking chances with your own life, you are liable at any moment to have a serious mishap and you are risking the probability of aggravating delays. So stop at your dealer's and equip your tires with Weed Chains. Do it today—before it is too late.

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Farm Labor Bureau

Kansas State Agricultural College, United States Department of Agriculture, and Kansas State Council of Defense, Co-operating.

In view of the present NATIONAL CRISIS, can you, and WILL you, PATRIOTICALLY or otherwise, be available for hired service, for wage or by CONTRACT, at any time within the year?

Please fill in the blanks of this QUESTIONNAIRE and hand or mail to your COUNTY AGENT, SECRETARY OF COMMERCIAL CLUB, or E. E. FRIZELL, MANHATTAN, KAN., at once, and we will credit you for doing a splendid and necessary NATIONAL SERVICE.

LABOR AVAILABLE

Name

Address, P. O. Phone

Single Married If married, number in family

Work wanted—singly or collectively Alone

With team With outfit For wages

By contract Kind of work preferred

Wages expected Skilled

Occupation

Experience

When available

References

Names:

Addresses:

Fattening Rations for Beef

BY H. J. GRAMLICH

I am feeding some 900-pound steers which I bought in December. I have fed them largely on snapped corn and kafir since getting them, and would like to know if I would be justified in buying oil meal to feed in addition. Would you advise feeding alfalfa now or say during the last 30 days of the fattening period?

Your ration is lacking in protein and I am confident that you would be well repaid to purchase either oil meal or cottonseed meal to feed with this corn and the kafir fodder. On that ration, if these cattle are receiving about all of the corn they wish, I would be inclined to feed as much as 4 pounds a day of either oil meal or cottonseed meal. If you include alfalfa, it is possible you might not be justified in feeding to exceed 2 or 3 pounds a day of the protein supplement.

The snapped corn at \$1 a bushel is a good buy, provided it is reasonably good corn. We have one lot of our experimental cattle here at the university this winter on snapped corn, cottonseed cake, and alfalfa hay. These cattle are eating, now, 24 pounds of snapped corn, 2½ pounds of cottonseed and 6 pounds of alfalfa. The steers seem to be doing well on this ration. They are cattle that would have weighed about the same as your cattle at the start of the test.

If you have young stock that can clean up the kafir I would be inclined to think that you would be justified in feeding some alfalfa to these fattening cattle from now on, rather than the last 30 days. I would say you would be justified in keeping alfalfa and kafir both before these cattle constant-

ly. They would not eat a great deal of either, but would appreciate the variety. You will note that our cattle where receiving snapped corn, are only taking of their own will 6 pounds of alfalfa hay a day.

Planting Black Locust Seed

I have some land in Southeastern Montana, and would like to plant 1 or 2 acres to Black locust trees. How should the seed be treated? Would it be a good plan to soak the seed before planting? When should it be planted?

Black Locust seed usually is planted after danger of frost is past in the spring. In other words, you would plant them about the same time you would plant beans or other frost-tender garden crops. It is a common practice to soak the seeds in hot water before they are planted. In fact, this is necessary if you expect to get a good percentage of germination. I have seen the seed put in a wooden pail and covered with boiling water. In this case only enough water should be used to cover the seeds. They are then allowed to stand until cool enough to handle, and planted. I think it is safer probably to use water somewhat below the boiling point, and let the seed soak longer. I do not believe there would be any danger of injuring seed if covered with a quantity of water at 150 degrees and allowed to soak for 24 hours.

The better the hog the less the food cost in the production of a pound of pork.

Butter color will not cover up defects in grain or flavor.

If your subscription is soon to run out, enclose \$1.00 for a one-year subscription or \$2.00 for a two-year subscription to Farmers Mail and Breeze, Topeka, Kan.

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Ajax Road King proves its superiority on all roads. Guaranteed to uphold Ajax reputation for service. Ajax Road King gives proved surety under wheel. Truly, a monarch in quality, a democrat in service. Note the triangle barb tread—an added safety factor.

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DIRECT TO YOU at factory prices — We sell for LESS. IMMEDIATE SHIPMENT. ALL SIZES—2 to 22 H.P. GUARANTEED 5 YEARS. Write today. GREAT WESTERN ENGINE CO. 1364 Waldheim Bldg., Kansas City, Mo.



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SPECIAL OFFER: We will send this ring free and prepaid to all who send us two yearly subscriptions to the Household at 25 cents each. Show this copy of our paper to your friends. They will gladly give you their subscription when they see a copy. THE HOUSEHOLD, DEPT. SR-7, TOPEKA, KANSAS

Sunday School Lesson Helps

BY SIDNEY W. HOLT

Lesson for March 17. Jesus sending forth the twelve. Mark 6:1-13. Golden Text. Freely ye received, freely give. Matt. 10:8.

Another title for this lesson would be "An extended personality," for in reality that is just what Jesus did when He sent forth the 12 men He had been training. Gradually He had gathered them together and in the middle of His public ministry He set them apart to be with Him the rest of His life, and however undeveloped they may have been in the beginning they possessed the largest possibilities of any of His true followers.

Day after day as the natural result of the companionship and the continual example of Jesus's perfectness there grew in the hearts of these simple, imperfect men a deep, intense love which, backed by their devotion and admiration, finally developed men of such character that they afterward proved to be the most influential instruments in handing the Gospel down thru the ages. Had Jesus taken perfect men to start with we might have thought the Gospel a beautiful story, but it would never have held the wonderful appeal

that the growth of these men holds, for we realize from their difficulties and their temptations just what Jesus means to our inner life and what the result will be if we follow the goal ever held before us.

After six months of intensive training Jesus decided to continue the work thru an extensive method. The work was growing every day to such an extent that their field of endeavor also must increase. Jesus also wished to see how they would work without His visible presence, for in a short while they would have to work alone. This first journey of spreading the love of Jesus was their testing time.

And He called unto Him the 12, and began to send them forth by two and two.

"So when two work together each for each

Is quick to plan, and the other teach; But when alone one seeks the best to know,

His skill is weaker and his thoughts are slow."

In all works of definite purpose twice one is more than two. Very few persons are fitted to fill all the demands of any public gathering, and the wisest and the most successful way is to work in pairs.

Endowing the disciples with the power to heal disease and authority over unclean spirits Jesus started them

out on their new task just as ordinary men in their ordinary dress, walking from place to place and earning their humble needs as occasion demanded.

They were given a definite field to work in; that is, they were commanded not to go into the way of the Gentiles, the road that led to the surrounding nations, but to go rather to the lost sheep of Israel. This is not so selfish as it at first seems for it does not say that they are never to go outside, only that in Galilee was the best starting point. And this was true, for the Jews as a nation had had a long training in the religion of the true God and His expected Messiah. They had the promises of the new kingdom and were therefore expecting it. The disciples were acquainted with the people, and as poor men they could the more easily get work enough to sustain them while in Galilee.

On reaching any city or village, they were first to seek for some family that had heard Jesus or one that was worthy of being associated with them in their message of peace and hope. Here in this quiet manner they were to live their gospel, teaching it thru the example of their daily lives, performing the tender acts of mercy and healing that Jesus had given them power to do.

The modern church of today is often declared by quite prominent people to be declining, despite its steadily in-

creasing numbers and gifts, because much of its work is done thru the organization outside of the church. The idea comes from a misconception of the work of the church. The great religious organizations like the Y. M. C. A., Y. W. C. A., rescue mission, hospitals, schools and colleges are among the instruments that are making the world better, healthier and happier. They are simply the church at work doing the things for which the church is training its members.

Care in Hardening Plants

No plant should be taken directly from a hotbed or from a box in the house and exposed at once to open weather conditions. The change should be made gradually. Sometimes this is accomplished by first removing the sash on warm days, then on cool days, then on warm nights, and finally on cool nights. With plants shifted to beds or flats, however, it is better to move them to cold frames covered with glass, and gradually harden them there. The cool-season plants may finally be subjected to even a light frost, but the warm-season crops should never be exposed to so low a temperature. Besides exposing the plants to cool conditions, they should be given only enough water to keep them healthy, so they will become accustomed also to the dryer conditions of the open field. One should not be surprised if the cabbage plants turn purple and the head lettuce to a bronze-red color. These are indications of well-hardened plants.

Fistulous Withers.

I have a horse which has had fistulous withers for three years. There is a constant discharge. How can I cure him?
Nebraska. I. B.

I do not believe that there is any medicine that will cause the fistulous withers affecting this animal to heal up. The constant discharge is evidence that there is some diseased or dead tissue in the bottom of the wound and that the wound does not have sufficient drainage. Correct treatment, therefore, consists in a surgical operation which will remove such dead tissue and which will give proper drainage to the wound, after which the condition is to be treated by daily washings with some mild antiseptic. In view of the fact that this condition has existed for three years and longer, in my opinion the chances of obtaining a permanent cure are not very good. The surgical work in a case of this kind should be performed by a competent graduate veterinarian.

K. S. A. C. Dr. R. R. Dykstra.

Improved breeds of hogs improve the hog profits.

Very Much Awake

The Farmers' Union of Kansas at its recent annual meeting went on record with some resolutions which show that the headpiece of the man on the farm is working. Here are a few of them:

We heartily endorse the government policy of price-fixing and ask that the government control of prices be extended to cover every commodity in the market.

We demand government ownership of railroads and all other public utilities, such properties to be acquired and paid for at their actual physical value.

Be it resolved that the president appoint a committee of three livestock men at the meeting to investigate some of the independent packing plants and formulate a plan to co-operate co-operatively with such plants; that the state lecturers and organizers solicit pledges for stock at a par value of \$100 a share, and when the necessary amount is pledged to make it safe to buy, build or co-operate, that a meeting of the pledged stockholders be called to perfect an organization.

Be it further resolved that the Food Administration be urged to take immediate steps to equalize the price of feed and livestock prices to insure fair compensation and increased production of meat animals to supply our armies, the navy and the allies with meat. We request this resolution be wired to Mr. Hoover at once.

This is precisely the way to grapple with the packing trust. It cannot do business without the help of the producer.

The request telegraphed Hoover, if acted on immediately, will stop the landslide of farm stock to the butcher now going on because the feed costs more than the animals produced by it will sell for.

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Raynster on the label is your identification mark of good money's worth. It is a message to you from the world's largest rubber manufacturers, telling you that these weather-proof coats are right.

The Raynster Label covers the largest line of weather-proof clothing made. All kinds of heavy, rubber-surfaced coats for farm work, tough and durable. There are also cloth Raynsters of finest woolens, which make perfect overcoats, including good, warm ulsters for driving.

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Feeding Calves for Market

BY H. J. GRAMLICH

I have some 10-month-old calves on feed. Would it pay me to grind corn and oats and feed this mixed with alfalfa hay? Would you advise feeding them cottonseed meal?

Early in the winter and later last fall, when oats were as cheap as 50 cents a bushel, it was quite advisable to feed them to fattening animals, especially calves. However, with the market up to its present high figure, I doubt very much the wisdom of feeding oats in very large quantity, or at all. At present they represent a price of about 2½ cents to 2¾ cents a pound, and for fattening calves cottonseed meal at 3 cents a pound should prove to be the better and more economical feed, in conjunction with corn and alfalfa hay. A small amount of oats might be fed with the corn and the cottonseed, largely for variety, say 2 pounds of oats a head daily.

These calves, 10 months old, on full feed, would probably be consuming at this time about 12 pounds of corn, 2 pounds of oats and 2 pounds of cottonseed, or in the proximity of 14 pounds of corn and 2 pounds of cottonseed, together with from 3 to 4 pounds of alfalfa hay. This should be a very satisfactory ration.

Where you have plenty of pigs following the calves, I doubt the wisdom of grinding the corn unless you are situated in such a way that you can grind it quite cheaply.

These calves, on the ration mentioned, should be gaining from 2 to 2½ pounds a day. On this basis you could very quickly figure the feed cost of a pound of gain. Taking the ration given with 14 pounds of corn at 2½ cents a pound you would have 35 cents. Two pounds of cottonseed at 3 cents a pound would be 6 cents more, and 3 pounds of alfalfa at 1¼ cents a pound would be approximately 4 cents more, giving a daily feed cost of about 45 cents. If your calves make 2½ pounds a day, which they should do on this ration (and might even make 2½ pounds a day) your feed cost would be from 17 to 19 cents a pound of gain.

You are doubtless wondering on this basis where you are going to stand a chance of breaking even. It would seem as tho calves should be bringing considerably more money in another 60 days than they are at present. There is a possibility that you would have sufficient increase to let you out nicely on these calves, altho I doubt if they would make what might be termed a handsome profit.

You probably are feeding them a grade of corn which is not worth at present \$1.40 a bushel. It may be that you are feeding corn which is worth only \$1 a bushel, which would be less than 2 cents a pound and which would materially cheapen your cost of gain.

I would be inclined to recommend quite strongly the use of 2 pounds of cottonseed meal or oil meal in feeding these calves. Either of these protein supplements would prove satisfactory. It would help to stimulate the appetites of the calves and would keep them in good thrifty condition.

Killing of Peach Buds

To a farmer with a peach orchard it is of great interest to know the condition of the buds as the winter progresses, and such a knowledge also is of considerable practical value in planning the orchard work, for the pruning of the bearing trees should be guided largely by the number of live buds in the orchard. A knowledge of the various conditions by which fruit buds may be killed is of little benefit in alleviating the difficulty, altho the extent of the injury may be lessened somewhat by good orchard practice, keeping the trees vigorous, and planting hardy varieties.

In examining peach twigs it will be noticed that the buds are borne commonly in groups of three, the two outside buds being much larger and plumper than the central bud of the group. In practically all cases these outer buds will be found to be fruit buds, altho occasionally only one, and sometimes all three, may be fruit buds, and again there may be but a single fruit bud or a single leaf bud. Being able to distinguish between fruit buds and leaf buds, the condition of the former may easily be told by cutting them open thru the center with a

sharp knife. If they have brown or black centers, they are dead.

In order to obtain an accurate estimate of the probable crop as based on the number of live buds in an orchard, twigs should be cut from several representative trees and from different parts of a tree, and the buds counted carefully. If one bud in 10 is found alive, it is fair to assume that enough buds have survived to produce a good crop.

A Demand for Draft Horses

The demand for draft horses on our farms is increasing at a phenomenal rate. Argument to convince an intelligent farmer of the advantage of using heavy horses is no longer needed. He knows it. Farm sales reflect the situation. Roomy, drafty mares—grades—standing from 16 to 16½ hands, and weighing 1,600 pounds or over, will, if of reasonable age, command \$500 to \$600 a pair in almost any farm sale; and there are never enough of these animals to satisfy the clamorous demands of hard-headed farmers who wish good teams.

Small stuff and animals of draft breeding but too young to work may sell at a discount, but draft animals of serviceable ages are keenly sought after by farmers in all sections of this country. For a time last fall they

Big Dividends Still Piling Up

The dividends of 38 copper mining companies for 1917 amount to 192 million dollars. They have made more than 356 millions in profits within the last two years.

The Dupont Powder Trust, an enormous profit-maker, is to be paid 2 million dollars for constructing a powder mill for the government at Nashville, Tenn. For operating this plant six months, it is to get 3½ cents for every pound of powder it turns out during that time.

These and all other trusts and big businesses go on piling up millions of profits and when their billionaire and millionaire beneficiaries pay their income taxes they find they have twice as much left.

Why doesn't Congress draft 80 per cent of this money instead of squeezing it out of the desperately harried and burdened people who must pay toll on all sides to the profiteers for the right to live while their sons go to Europe to save and protect with their lives the property and profits of these profiteers?

sold below their real value, on account of the attempts of many owners to cut down on feed bills during the winter, in the hope that they might thereby be able to buy at a figure this spring which would make the venture profitable; but prices on good grade draft mares have advanced fully \$50 a head in the last 60 days, and men who sold themselves short last fall are destined to pay dearly for their experience this spring.

Skunk Oil

Where can I sell skunk oil?
Timken, Kan.

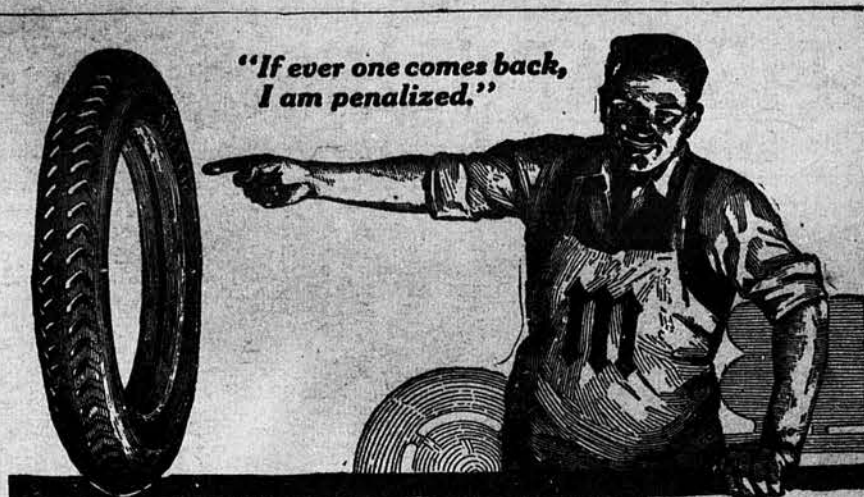
H. J. P.

I doubt if you could secure a market for skunk oil. I have heard of its being used for rheumatism and other complaints, but there is practically no demand for it. Skunk oil is of no more value as a medicine than any other oil. Of course if some of the musk could be mixed with the oil it would smell so bad and make the patient so sick that he would forget all about his other troubles. That probably is about all the good it would do. However, I suggest that you inquire of your druggist. There are a few places in the country still holding to the idea that there is virtue in the skunk oil or musk, or both.

Dr. Robert K. Nabours.

K. S. A. C.

In breeding it is the well settled rule that like produces like, but there is an additional clause which declares that this is doubly true where there is some defect; that is, that the tendency to transmit a defect is greater than the tendency to transmit a good trait.



Miller Announces Uniform Tires

Built by Crack Squads (96% Efficient)

MOTORISTS today must choose between about 429 brands of tires. Even tires made side by side, in the same factory, differ in mileage enormously.

If you get a "lucky" tire it may run between 5,000 and 10,000 miles. The next may fail under 500.

Not so with Miller Tires. Once they varied as the rest do. Today less than one per cent ever call for adjustment.

It would seem that other makers, too, could attain this uniformity. For methods are standard—known to all.

But tires are mostly handwork. They differ as the men who build them differ.

Miller has triumphed by solving this human equation. By ridding these tires of "human variables."

Miller Uniform Tires
GEARED-TO-THE-ROAD

99 Per Cent Excellent

Miller tire-builders are carefully recruited. Each must pass exacting standards.

He is marked on every tire that he builds. But more than that, he is penalized if ever one comes back.

Thus we've created a body of master tire-builders. They compose the crack regiment of the whole tire army. Their average personal efficiency is 96 per cent.

The tires they build—99 in 100—wear practically uniform under like conditions. That means these tires are 99 per cent excellent.

Tens of thousands of records furnish conclusive proof.

Give Them This Test

These are the only tires actually geared-to-the-road. Note the ratchet-like-tread—how the cogs engage the ground at each turn.

That gives positive traction on wet country roads; it keeps the wheels from spinning when you start your car. Thus the Miller Tread prevents scuffing and burning tires. And of course it makes all roads safer.

Next time don't buy only one tire—put a pair of Miller teammates on opposite wheels of your car. Then both will experience like wear.

After that test of Miller uniformity you'll never trust to luck.

THE MILLER RUBBER COMPANY, Akron, Ohio

Makers of Miller Red and Gray Inner Tubes—
The Team-Mates of Uniform Tires

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Hiawatha, F. M. Emerson
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Newton, Martens Motor Co.
Newton, F. E. Loper
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Otis, C. M. Brack
Parsons, A. A. Gager
Parsons, W. C. Holmes & Son
Pittsburg, Pittsburg Tire Co.
Pittsburg, Pittsburg Auto Supply Co.
Pierceville, Jewell Garage
Prairie View, Fansler Garage
Riley, Chas. Kaup
Richmond, T. S. Semple & Co.
Russell, Radke Bros. Co.
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Salina, Belle Tire Service Co., 153 N. 7th St.
Salina, Interstate Vulcanizing Co.
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Smith Center, J. O. Smith
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Special Notice All advertising copy intended for the Real Estate Department must reach this office by 10 o'clock Saturday morning, one week in advance of publication to be effective in that issue. All forms in this department of the paper close at that time and it is impossible to make any changes in the pages after they are electrotyped.

GOOD WHEAT SECTION, well located; will split; some in cultivation. \$25 per acre. Good terms. C. W. West, Spearville, Kan.

600 ACRES, well improved, lays good. Price \$50 per acre. Other farms for sale. John J. Wieland, Emporia, Kan.

360 ACRES GOVE CO., KAN. 190 cultivated, balance pasture. \$12.00 acre. W. P. Dorman, Girard, Kan.

160 ACRES, 20 acres wheat, 4 miles county seat. Incumbrance \$5000, price \$75 acre. Triplett Land Co., Garnett, Kan.

RANCH 1500 A., part river bottom, improved. About 6000 acres pasture. \$15 per acre. Terms. Box 364, Syracuse, Kansas.

320 A., 3 MI. TOWN. ALL IN GRASS. All level, no imp. Price \$7,000. Terms on part. H. J. Settle, Dighton, Kan.

4 SECTIONS of good ranch land in a body located about 11 mi. S. W. of Elkhart, Kan. \$10 a. Earl Taylor, Elkhart, Kan.

720 ACRE STOCK AND GRAIN FARM. Well improved. 400 cult., bal. grass. \$60 acre. Investigate. W. P. Dorman, Girard, Kan.

I HAVE A GOOD BUNCH OF FARMS AND RANCHES FOR SALE. If you have anything for sale list it with me. Write Guss Schimpff, Burns, Kan.

290 ACRES, six room house, new barn, close to school and three towns. Possession March first. Price \$30 a. Easy terms. The King Realty Co., Scott City, Kan.

160 ACRES, well improved, abundance of water, 3 miles good town. Price \$3,000, good terms. Some good exchanges. Holcomb Realty Co., Garnett, Kan.

FOR SALE—All kinds of farms in Northeastern Kansas. Send for printed list. Silas D. Warner, 727 1/2 Commercial St., Atchison, Kan.

LANDS IN STEVENS and Morton Counties, Kansas, and Baca County, Colorado. Write us for prices. John A. Firmin & Co., Hugoton, Kan.

185 ACRES \$55 PER ACRE. Montgomery Co., 5 miles good town, 130 cult., 20 mowland, balance pasture; improved. Get details. Foster Land Co., Independence, Kan.

LANE COUNTY. Highly improved section, on state road, between 2 towns, terms \$30 an acre. Level quarter grass land \$10 an acre. Get a list of bargains. C. N. Owen, Dighton, Kan.

8000 A. RANCH. 7500 a. grass, 2 mi. of spring water. All fenced, cross fenced, good ranch improvements. 1500 a. alfalfa land, 4 mi. town, main line R. R. \$15 a. Terms. F. H. Templeton, Spearville, Kan.

INCOME PROPERTY wanted for 320 a. good smooth land. Good location for farming, or raising cattle. Price \$17.50. Mortgage \$1,000, 5 years 6 per cent. J. M. Edmiston, Garden City, Kan.

IMMEDIATE POSSESSION of 80; 120; 160; 400 acres. No matter what size tract you may be interested in, come at once. MANSFIELD LAND CO., Ottawa, Kansas.

175 A., 1/2 MI. AGRICOLA. 4 1/2 Waverly, 10 alfalfa, 20 clover, 20 blue grass pasture, 18 wheat goes. New house and barn, granary and crib, two chicken houses, two good wells, never failing. Will carry \$4,500, 6%, \$12,000. W. H. Lathrom, Waverly, Kan.

227 ACRE FARM in Polk County, Mo., highly imp., 1/2 valley land, to trade for good farm in Okla. Price \$55 per acre. R. L. Presson, Bolivar, Mo.

Improved 276 A. Alfalfa Farm All tillable, 60 acres in alfalfa, 160 acres fine hay land, good grass well on land, 1/4 mile to good oil wells. Price only \$65.00. M. T. Spang, Fredonia, Kan.

CHOICE QUARTER—\$2500.00 Only 5 miles S. W. Liberal, \$750 cash, bal. easy terms, 6%. No trades. No improvements. Get busy if you want this bargain. Write owners. Griffith & Baughman, Liberal, Kan.

160 ACRES FOR \$2500 Near Wellington; valley land; good bldgs., 35 past., 25 alfalfa, 30 wheat, bal. cult.; poss.; only \$2500 cash, bal \$500 year. Snap. R. M. Mills, Schweiter Bldg., Wichita, Kan.

NESS COUNTY Good wheat and alfalfa lands at from \$15 to \$30 per acre. Also some fine stock ranches. Write for price list, county map and literature. Floyd & Floyd, Ness City, Kan.

A Good Stock Farm 160 a., 5 room house, cow and horse barn, silo, sheds, scales, everlasting water, 50 a. alfalfa, good pasture, phone and mail, 1/2 mile school, 4 1/2 miles to railroad, 70 acres wheat goes if sold soon. Reason for selling, old and boys at war. \$5.50 per acre if sold soon. Write owner. Wm. Littlefield, Belvue, Kan.

60 A. IMP., ALL TILLABLE, \$45 a., \$800 down, bal. easy terms 6 per cent. 160 a. well imp., 2 1/2 town, 100 a. cult., 40 wheat goes, 40 pasture, 20 meadow-orchard, \$45 a. \$3,000 will handle. Leostone soil. P. H. Atchison, Waverly, Kan.

CHASE COUNTY stock farm, 282 acres, 5 mi. Elmdale, 1/2 mile school. Daily mail, telephone, good roads. 100 acres cultivated including 25 acres alfalfa, 20 acres wheat, 180 acres pasture, timber, creek. Fair improvements. No trades. Price \$15,000. J. E. Beacock & Son, Cottonwood Falls, Kan.

160 ACRES creek bottom near Emporia, well improved, 40 acres in alfalfa, near school; \$70 per acre. 80 acres, 3 miles from Emporia, 60 acres in alfalfa, 15 wheat, extra good improvements; \$10,000. 160 acres, well improved, 80 fine wheat, smooth land, 6 miles town; \$10,000. Write for list. T. B. Godsey, Emporia, Kan.

TWO 80 ACRE FARMS ON EASY PAYMENTS. Both of these farms located in Franklin county, Kansas. Both within 5 miles of good railroad towns, on the Santa Fe, both of them good, all tillable farms; fair improvements. \$65 per acre. \$1500 cash, long time on rest at 6%. Possession March 1st. Casida & Clark, Ottawa, Kansas.

FOUR IMPROVED FARMS on Fort to Fort (concrete) road, Leavenworth county. 160-175-320 and 425 acres, three fourths latter in wheat, choice valley land. A tractor farm. All farms join shipping stations, close to school. Two Kaw Valley farms. 75 acres highly improved potato land, close to high school town. 123 acres improved, 100 acres wheat, close to station. All priced to sell quick. Good terms. HEMPHILL LAND CO., Lawrence, Kansas.

680 ACRES WELL IMPROVED, 2 1/2 miles of town, accredited high school, 1/2 mile of country school, R. F. D. and phone. 260 acres wheat all goes, half under cultivation, all tillable, best of soil, inexhaustible supply good soft water, new 5 room house with 23 ft. square basement, out door cave with underground entrance to out door, arched cave, two good granaries, windmill, chicken house, wash house, good barn 28x40 with loft, nearly all under fence, in good neighborhood, price \$35.00 per acre, easy terms or might take good quarter section as part pay in Central or Southern Kan., bal long time. Box 141, Uteka, Kansas.

160 ACRES 5 miles Leslie, 46 acres cultivation, good improvements, good water, orchard, 140 acres can be farmed. \$1800, terms. Wallace Realty Co., Leslie, Ark.

PRODUCTIVE LANDS. Crop payment on easy terms. Along the Northern Pac. Ry in Minnesota, North Dakota, Montana, Idaho, Washington, Oregon. Free literature. Say what states interest you. L. J. Brieker, 81 Northern Pacific Ry., St. Paul, Minn.

BATES CO., Mo. stock, grain, blue grass and clover farms. Duke, Adrian, Mo.

240 ACRES fine imps., all tillable, \$35 a. E. M. Houston, Archie, Mo.

SPECIAL BARGAINS, good investment on farms for sale. Write for free list. Terms to suit. J. H. Engelking, Diggins, Mo.

FOR STOCK and grain farms in Southwest Missouri and pure spring water, write, J. E. Loy, Flemington, Missouri.

BLUE GRASS, Corn and clover farms. 60 mi. south of Kansas City. Best buy you can make. Write me. Parish Real Estate Exchange, Adrian, Mo.

80 ACRES, 5 miles from Carthage, all smooth, all tillable. Well improved, \$35 a. Farms of all sizes at special bargains. D. W. Replogle, Carthage, Mo.

CASS COUNTY. 300 acres highly improved; ideal for fine cattle ranch; close to Harrisonville; all second bottom and half in grass. Charles Bird, Harrisonville, Mo.

POOR MAN'S CHANCE—\$5 down, \$5 monthly, buys 49 acres, productive land, near town, some timber, healthy location. Price \$200. Other bargains. Box 425-0, Carthage, Mo.

280 A., 10 MI. COUNTY SEAT 200 a. cultivated, bal. timber pasture, 150 a. valley, R. F. D. and school. Abundant water. Two improvements. \$40 per a., terms. John W. Goff, Willow Springs, Mo.

20 A. IMP., fruits of all kinds, 1 1/2 mi. town, \$3,000. Very desirable. 230 a., well imp., 125 cult., 100 a. bottom, bal. pasture and timber, living water. If sold soon \$25 a. Four miles town. 110 a. imp., 50 cult., bal. timber and pasture, living water, \$25 a. Terms. Exchanges made. Have farms to suit every one. R. J. Frisbee, Mt. Grove, Mo.

217 ACRES Big Stock and Grain Farm 175 acres in cultivation, machine worked fields, of rich loam soil; 35 acres heavy timber; 4 springs and creek on farm; 8 room house; big barn; good location; 5 miles good town; big bargain \$40 acre, terms. H. B. Wann, Humansville, Mo.

COLORADO

DETERMINED TO SELL MY THREE IRRIGATED FARMS in the famous Arkansas Valley near Rocky Ford and Pueblo. Best climate for lung troubles. Good water. Easy terms. For guaranteed description address owner, E. A. Holtz, 1515 Cheyenne Road, Colorado Springs, Colo.

WISCONSIN

30,000 ACRES our own cut over lands. Good soil, plenty rain. Write us for special prices and terms to settlers. Brown Bros. Lumber Co., Rhinelander, Wis.

OKLAHOMA

FOR SALE. Good farm and grazing lands in Northeastern Oklahoma. Write for price list and literature. W. C. Wood, Nowata, Oklahoma.

250 A. 3 m. city, all bottom and 2nd bottom. No rock. No overflow. 220 A. cult. Good imp. Produced in rents last year \$1490. Rented this year \$1200 cash. \$33 per a. Southern Realty Co., McAlester, Okla.

OKLAHOMA: Wheat farms for sale. Well improved, smooth upland or bottom farms, in best farming section of Oklahoma; also in the oil belt. Price \$50 to \$100 per acre. Write or call on J. R. Sparks, Billings, Okla.

SALE OR EXCHANGE

EXCHANGE BOOK, 1000 farms, etc. Trades everywhere. Graham Bros., El Dorado, Kan.

TRADES EVERYWHERE, book free. See us before buying. Bersie, El Dorado, Kan.

OZARKS OF MO., farms and timber land, sale or ex. Avery & Stephens, Mansfield, Mo.

14 BEAUTIFUL residence lots in Beebe, Ark., for sale, or will trade on farm. C. C. Chumley, Beebe, Ark.

40 A. TANEY CO., MO., for western land, or live stock. Is clear. \$1,000. E. W. Moore, Spearville, Kan.

IMPROVED eighty, near county seat, for thousand dollar value in late model touring car. Box 338, Scott City, Kan.

FOR Illustrated booklet of good land in southeastern Kansas for sale or trade write Allen County Investment Co., Iola, Kan.

\$30,000 RESIDENCE, 1836 Pendleton Ave., Kansas City, Mo. Exchange for ranch. Pay cash difference. W. P. Dorman, Girard, Kan.

EXCHANGE FOR MERCHANDISE: 418 acres in Thomas Co., Kansas. 4 1/2 miles from town. \$12,500. 160 acres in Jackson Co., Okla., \$9,000. 160 acres improved, 6 miles from Coffeyville. \$10,000. The Pratt Abstract & Investment Co., Pratt, Kan.

FOR SALE OR TRADE, an eight apartment flat and two residences all on same block in Muskogee, Oklahoma. Fine location, bringing good rent, want good farm. Also 640 acres Lincoln Co., Colo., for merchandise. C. A. Long, Fredonia, Kan.

IMPROVED half section, 10 miles Ogallah, Kansas. 50 acres can be plowed, balance rather rough but good pasture. Price \$25 per acre. Mortgage \$2500. Trade equity for grocery stock, residence or suburban property, clear. Western Real Estate Co., Ellis, Kan.

FOR SALE AND EXCHANGE Northwest Missouri, Iowa and Nebraska choice farms; the greatest grain belt in the United States. Get my bargains. M. E. Noble & Co., St. Joseph, Mo.

FOR SALE OR TRADE. 200 acres unimproved Wichita county, Kansas, land, 6 miles from county seat; also 1 late model 8 cylinder 7 passenger Cole car, full equipment and good shape. Harvey Beeler, St. Marys, Kansas.

MONTANA The Judith Basin offers exceptional opportunities to the farmer, stockman and investor. Sure crops by ordinary farming methods. Harvest every year—not once in awhile. No irrigation, splendid climate, excellent water, good markets. You can do better in the Judith Basin. Buy direct from the owners. Prices lowest; terms easiest. Free information and prices sent on request. Address THE COOK-REYNOLDS CO., Box K-1405, Lewistown, Montana.

Republic County Notes

BY D. M. HESSENFLOW

With the coming of warmer weather the hens have begun to do their bit and we are gathering from 3 to 4 dozen eggs a day now. They had not laid a dozen of eggs all winter until about three weeks ago when we put them on a regular system of feeding. Many articles have been written concerning the different methods of feeding and management of hens if they are to produce winter eggs. There is no best method. To get a full egg basket one should adopt a regular system of feeding and adhere to it consistently.

I never realized the value of consistent feeding until I made up my

mind to try it. I built a self-feeder in which I feed a dry mash consisting of equal parts by weight of wheat bran, shorts, cornmeal, corn gluten and alfalfa meal, to 3 parts meat meal and crushed charcoal. This mash should be kept before the birds at all times, which can be done only with the use of the self-feeder. Water should be kept before them also and if the weather is cold give warm water often. I have a self-heating water fountain that overcomes the water question in cold weather.

One cold windy day last week we made an attempt at oiling the harness with the result that one full set was oiled and the harness painted, which improves the looks as well as the lasting qualities. This is the first time the set has been oiled since I owned it, which has been three years, and the newness had worn off pretty badly in places. We used the ready prepared oil, applying it with a paint brush freely. If a good shine is desired it can be had by adding a small quantity of ivory black to the oil. After the harness is dry take a rag and rub it but do not use lamp black, as it will rub off on the hands and clothing.

Cheap Lime for the Farm

BY GEORGE CASSEL

My brother and I decided last year that it was necessary to get some lime into the soil on one of our farms. This looked easy as we had a large limestone cliff about a mile from the place where we needed the lime. We started to get this rock out to make a lime kiln and burn the lime ourselves, but we soon found ourselves up against Mother Nature's plan for the rock to stay put. We could not quarry the rock economically. At last I remembered that I had heard of the use of dynamite for this work.

I bought a case of 50 per cent straight nitroglycerine dynamite and proceeded to try out my theory. The results were just what we wished for after we had drilled holes in the cliff and loaded them they were fired and a large amount of the rock thrown down. We then found some of the boulders too large to handle and again the giant explosive was called in. A stick placed on the top of a large boulder and covered with mud produced the desired result. In this way, we also exploded our neighbors' expense for not applying lime. They had said that it was cheaper to do without than to quarry the stone and burn it. We demonstrated that getting the rock in small enough pieces to build the kiln was the easiest part of the whole job.

I am now keeping a stock of dynamite at my home simply to accommodate my neighbors who said that they could not get the explosive. A little experimenting also convinced me that it was a good preventive of temper to know that whenever I broke a plow or mowing machine on an old stump that there was a case of something at the barn that would get the stump and give me the chance to put the cussing usually resorted to under the circumstances to a more practicable use.

Special Ten Day Offer

Readers of the Farmers Mail and Breeze can receive a big Western Weekly, ten weeks for only 10 cents. Capper's Weekly is the biggest and best general home and news weekly published in the West. Contains all the latest war news, also the political news of the State and Nation. Review of the week's current events by Tom McNeal, interesting and instructive departments for young and old. This is a special ten day offer—ten big issues—10c. Address Capper's Weekly, Dept. M. B., Topeka, Kansas—Advertisement.

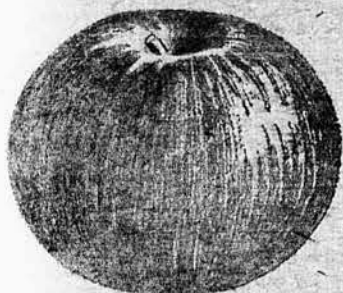
Away With Greed

Governor Capper is after the packers with a sharp punch. Good for you, governor. You can be mighty solid with the Kansas voters if your efforts yield results that will crush their greed. In any event we Kansans are with you to the finish in this attack.—Shawnee Chief.

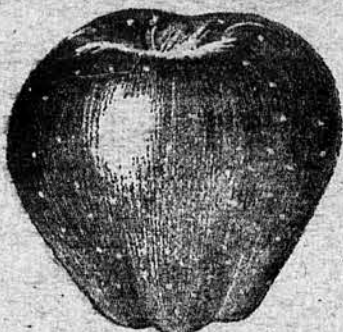
"Does your son who is abroad with the troops understand French?"

"Oh, yes, but he says the people he meets there don't seem to."—Baltimore American.

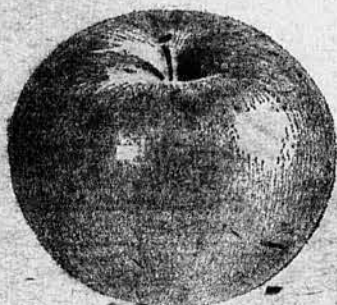
10 Apple Trees Free To You



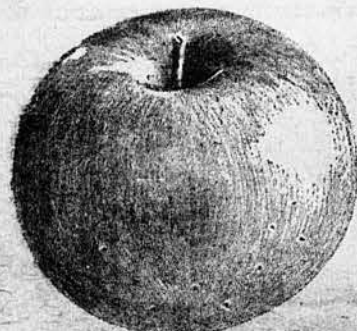
3 Wealthy



2 Delicious



2 Jonathan



3 Northwestern Greenings

10 Real, Live, Hardy Apple Trees—Apple Trees of the Very Choicest Quality—Apple Trees As Fine As You Can Buy

**Two one-year subscriptions to Capper's Weekly
10 Splendid Apple Trees**

(3 Wealthy, 2 Jonathan, 2 Delicious and 3 Northwestern Greenings)

All shipping charges prepaid.

All for only

\$1.00

Wonderful Value

If you know anything about Apple Trees, this offer is bound to astonish you. Your first thought will be, "It can't be true." But the wonderful part of this offer is that it is true—every word of it. All you have to do is to send in two one-year subscriptions to Capper's Weekly at 50c each—new or renewal and we will send you these 10 Apple Trees true to name, true to variety and exactly as represented, all charges prepaid. These ten trees are just exactly right for transplanting. We picked out these varieties because we knew they could satisfy you. Now, if when your trees are received, they should not be just as represented, you can notify us and we will send your money back.

Complete Instructions

are sent with each set of trees. Positive, but simple directions that explain to you how you are to plant and care for growing of these trees.

This Offer

is made possible by an arrangement which we have made with one of the most reliable and most progressive nursery concerns in the Middle West. These trees are true to variety—healthy, vigorous and this dependable concern guarantees that you can rest assured that you will get exactly the set of trees as described in this page.

Description of Varieties

NORTHWESTERN GREENING. This variety was originated in Wisconsin some years ago. It is a splendid, vigorous, hardy grower. The fruit itself is large and sometimes exceptionally large. It is green as the name implies, but when ripe, it becomes a yellowish green. The flesh is yellow—fine grained and firm. The flavor is a good sub-acid, very smooth and attractive to the palate. The Northwestern Greening is one of the best growers we have and is prolific and bears regularly when mature.

JONATHAN. A brilliant flashing red apple with a spicy, rich acidity that has made it a prime favorite with all lovers of an acid apple. The tree is adapted to many sections. Orchards of them are found in the northeast, south and west and they always pay. The Jonathan is a splendid family sort. For many years, Jonathans have been the standard of quality by which other sorts have been gauged.

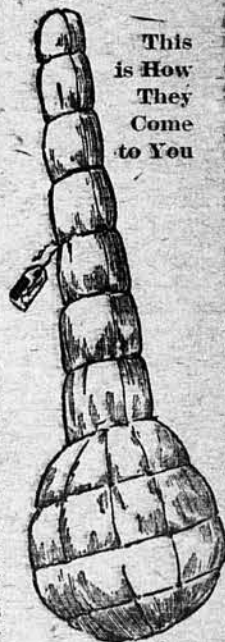
WEALTHY. This variety is an enduring monument to its originator, M. Gideon, of Minnesota. The fruit is large and is a beautiful light yellow shade with crimson stripes and splashes. The flesh is white, often stained with red. The Wealthy Apple is splendid as a dessert or cooking apple. This variety is especially adapted to home gardens, as well as for commercial orchards.

THE DELICIOUS is first of all a quality apple. It hardly needs an introduction to anyone who knows anything about Apple Trees. Many authorities claim that the Delicious has no peer, that it is the finest apple grown. The yields are excellent and as the trees grow older, they bear more and even larger fruit. Almost all of the prominent apple growers have a good supply of the Delicious variety in their orchards. Higher prices are being paid for this variety than for most any other apple. They frequently sell on the fruit stands in cities at from 10c to 25c apiece.

What Is Capper's Weekly?

Capper's Weekly is the great Weekly newspaper of the Great West. Here are the things it stands for and advocates:

The welfare of the American home; 100-cents-on-the-dollar government; better schools and free school books and an education that will fit every child for the business of life; nation-wide prohibition, nation-wide suffrage; an end to fee-grabbing receiverships and the entire fee system; courts and laws as prompt and as impartial as the postoffice; fewer new laws and an honest enforcement of those we have; a permanent peace alliance for the total abolition of war; a square deal to everybody irrespective of condition, race, color or politics.



When to Plant

Planting season is not regulated by date or by planter's location. This Nursery's method of growing, packing and shipping trees assures arrival of trees in proper planting conditions. Annually they ship thousands of trees to planters in the South, weeks after the season has opened, and the trees are planted with entire success.

Arrival of Trees

When your ten trees have arrived, unpack them immediately, carefully shaking out all of the packing and if possible, plant them at once. Full directions as to just how to plant with best success will be sent you.

**CAPPER'S WEEKLY
TOPEKA, KANSAS**

Apple Orchard Coupon

M & B 3-9-18

CAPPER'S WEEKLY, TOPEKA, KANSAS.
Gentlemen: Please find enclosed \$1.00 which pays for two one-year subscriptions to Capper's Weekly.

1. Name.....

TOWN.....

Street or R. F. D.....STATE.....
(State here if this is a new or renewal subscription.)

2. Name.....

TOWN.....

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(State here if this is a new or renewal subscription.)

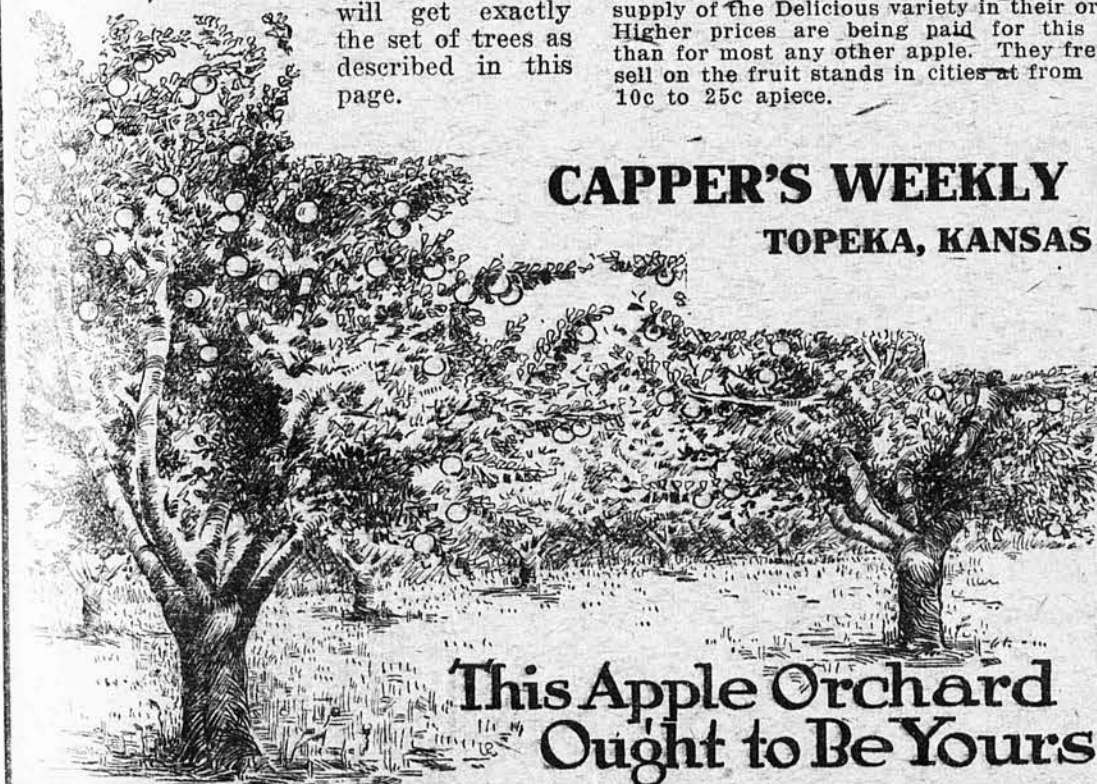
My own name is.....
Ship the ten Apple Trees, all charges prepaid to my address which is:

Name.....

TOWN.....

Street or R. F. D.....STATE.....

Note. This offer is not good outside of the United States.



**This Apple Orchard
Ought to Be Yours**

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Rate: 6 cents a word each insertion for 1, 2 or 3 times. 5 cents a word each insertion for 4 CONSECUTIVE times. IT GIVES RESULTS. Count each initial, abbreviation or whole number as a word in both classification and signature. No display type or illustrations admitted. Remittance must accompany all orders.

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Words.	One time.	Four times.	One time.	Four times.
10.....	.60	2.40	1.50	6.00
11.....	.66	2.64	1.65	6.60
12.....	.72	2.88	1.80	7.20
13.....	.78	3.12	1.95	7.80
14.....	.84	3.36	2.10	8.40
15.....	.90	3.60	2.25	9.00
16.....	.96	3.84	2.40	9.60
17.....	1.02	4.08	2.55	10.20
18.....	1.08	4.32	2.70	10.80
19.....	1.14	4.56	2.85	11.40
20.....	1.20	4.80	3.00	12.00
21.....	1.26	5.04	3.15	12.60
22.....	1.32	5.28	3.30	13.20
23.....	1.38	5.52	3.45	13.80
24.....	1.44	5.76	3.60	14.40
25.....	1.50	6.00	3.75	15.00

So many elements enter into the shipping of eggs by our advertisers and the hatching of same by our subscribers that the publishers of this paper cannot guarantee that eggs shipped shall reach the buyer unbroken, nor can they guarantee the hatching of eggs. We shall continue to exercise the greatest care in allowing poultry and egg advertisers to use this paper, but our responsibility must end with that.

ANCONAS.

ANCONA EGGS. SEVEN DOLLARS HUNDRED. Earl Grimes, Minneapolis, Kan.

S. C. ANCONA EGGS 15-100. 100-\$7.00. Farm flock. Dr. Watson, Eudora, Kan.

PURE ANCONA COCKS \$2.50 UP. EGGS 100-\$7.00. Ethel Johnson, Assaria, Kan., Box 51.

20 FULL BLOOD ANCONA COCKERELS, select stock, 2 to 5 dollars. Claude Bailey, Peabody, Kan.

SINGLE COMB ANCONAS. GOOD FERTILE eggs \$2.00 per 15. Roy Park, Yates Center, Kan.

SINGLE AND ROSE COMB ANCONA EGGS cheap, from extra good stock. G. D. Williams, Inman, Kan.

S. C. ANCONA EGGS FROM MATURE stock, \$7-100. Also cockerels. Mrs. Will Torgeson, White City, Kan.

SINGLE COMB ANCONAS. EGGS 15 FOR \$1.50 or \$8.00 per one hundred, delivered. C. K. Whitney, R. No. 9, Wichita, Kansas.

MY FLOCK FROM PRIZE WINNING Single Comb Ancona eggs 15, \$1.00; 100, \$6.00. Satisfaction guaranteed. Shem Yoder, Yoder, Kan.

ANCONA-R. C. RHODE ISLAND REDS. Cockerel for sale \$2.00 and up for good breeding stock. Eggs in season. Emmett Pickett, Princeton, Mo.

PURE BRED, MOTTLED ANCONAS. World's record layers. Eggs \$1.50-15. \$7.00 per 100. Also a few cockerels at \$2.00 each. W. T. Likes, Williamsburg, Kan.

MY ANCONA DOPE TELLS WHY I QUIT all other breeds. Ancona breeders got eggs all winter. Did you? Why keep loafers' breed Anconas. 15 eggs \$2.40; 40-\$4.00; 65-\$5.75; 100-\$8, prepaid. Page's Farm, Salina, Kan.

BABY CHICKS.

BABY CHICKS, EGGS, SINGLE COMB Black Minorcas. Rose Bethell, Pomona, Ks.

BABY CHICKS, EGGS AND STOCK FROM ten varieties. Circular free. Jas. Houck & Co., Tiffin, Ohio, Box 813.

SINGLE COMB WHITE LEGHORN BABY chicks 15 cents. Orders booked now. Mrs. Anna Hege, Sedgwick, Kan.

BABY CHIX AND EGGS. ALL LEADING varieties, largest winners at State fairs and shows. H. J. Hart, Falls City, Neb.

BARRON'S TRAP NEST, BRED-TO LAY. Lusty S. C. W. Leghorn chicks, eggs. Guaranteed. Flore Patterson, Melvern, Kan.

75,000 BABY CHICKS, BARRED AND Buff Rocks, White Leghorns. 15 cents, prepaid. Live delivery guaranteed. Young's Hatchery, Wakefield, Kan.

BABY CHICKS-20 LEADING VARIETIES. Safe delivery guaranteed. Price list free. Largest hatchery in Middle West. Miller Poultry Farm, R. 10, Lancaster, Mo.

YOU BUY THE BEST CHICKS FOR LEAST money at Colwell's Hatchery. Guaranteed alive or replaced free. Shipped anywhere. 100,000 to sell. 12 cents each. Smith Center, Kan.

BABY CHICKS-ROCKS, REDS, WYANDOTTES, Leghorns and Anconas. Circulars free. Eastern Branch Hatchery, Fostoria, Ohio. Huber's Reliable Hatchery, Dept. A, Augusta, Kan.

BABY CHICKS-WHITE LEGHORNS, Barred Rocks, 15c each, prepaid. We hatch thousands of them. Jesse A. Younkin, Wakefield, Kan.

BABY CHICKS. S. C. WHITE LEGHORNS, Barred Rocks, Golden Seabright Bantam eggs. Riverside Poultry Farm and Hatchery, Blackwell, Okla.

BRAHMAS.

EGGS FROM FINE LARGE LT. BRAHMAS. Also males. Mrs. Fred O'Daniel, Westmoreland, Kan.

THOROUGHbred MAMMOTH LIGHT Brahmas 15 eggs \$2.00; 100-\$8.00. Cora Lilly, Olivet, Kan.

DUCKS.

MAMMOTH PEKINS, EGGS \$1.50, PER 15 prepaid. Miss M. Kragh, Driftwood, Okla.

10 FAWN WHITE DRAKES, GOOD LAYING strain, \$2.00, \$3.00. Mrs. Ben Miller, Newton, Kan.

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NEW ZEALAND-RED BUCKS, BRED DOES and three-months-old rabbits. Chas. Luegene, Topeka, Kan.

SEEDS AND NURSERIES.

DRY LAND ALFALFA SEED. DE SHON, Logan, Kansas.

FETERITA HEADS 50 LB. 50 LBS. UP. H. Moyer, Danbury, Neb.

RECLEANED WHITE SWEET CLOVER seed. Alex Spong, Chanute, Kansas.

FETERITA SEED IN HEAD 50 PER LB. C. E. Grandle, Pittsburg, Kan., R. 3.

WANTED TO BUY 100 BU. ALFALFA Seed. Ernest Raasch, Norfolk, Neb.

STRAWBERRY PLANTS, \$2.50 PER 1000, list free. J. Sterling, Judsonia, Ark.

SEED CORN. BOONE COUNTY WHITE. Very carefully selected, splendid corn. \$4 bushel sacked. J. H. Crouch, Garnett, Kan.

SEEDS AND NURSERIES.

FINE ALFALFA SEED \$9.50 PER BU. F. O. B. H. R. Potter, Chandler, Okla.

1917 ORANGE CANE SEED \$4.00 BU. sacked. William Cutler, Hugoton, Kan.

ENGLISH BLUE GRASS SEED, 150 PER lb. Recleaned. D. J. Standifer, Reading, Kan.

WHITE BLOSSOM SWEET CLOVER SEED, unhulled \$15 per bu. 60 lbs. Chas. Kelley, Kinsley, Kan.

BLACKHULL WHITE KAFIR SEED, WELL matured. \$4.75 hundred sacked. Arthur Leo, Tuttle, Okla.

SUDAN GRASS SEED. PURE, RE-cleaned Kansas grown. Write T. N. Beckey, Linwood, Kan.

SEED CORN. EARLY OR LATE HILDRETH yellow dent, \$3.00. Originator, C. E. Hildreth, Altamont, Kan.

BLACK HULLED WHITE KAFIR TESTED seed, \$2.50 per bu. Sacks extra. R. E. Mariner, Fredonia, Kan.

WELL MATURED BLACK HULL WHITE kafir \$4.50; cane seed \$8.50; milo \$7, all cwt. J. T. Lemon, Tuttle, Okla.

PINTO BEANS: DELIVERED YOUR STATION ten cents per pound fifty pound lots or more. C. F. Hines, Elkhart, Kansas.

BROOM CORN—EARLY DWARF SEED IS scarce. Transportation bad. Order early. \$3 per bushel. Len Sanders, Atlanta, Kan.

PURE KANSAS SUNFLOWER SEED FOR sale, shelled and tested \$3.25 per bushel. 10 bu. lots \$3.00. Fred Carlisle, Burrton, Ks.

FOR SALE—1916 REID'S YELLOW DENT corn, shelled and graded; fine condition; \$5 a bushel. McCall & Williams, Onida, Ks.

KAFIR, BLACK HULLED WHITE \$5.00 hundred pounds. Dwarf Broom Corn seed \$5.00 bushel. Fred Prieb, Elk City, Okla.

SCHROCK KAFIR SEED FOR SALE BY grower. Sample and price on request. James Wilson, Box 5, Route 6, Parsons, Kan.

SELECTED PURE BLACK HULL WHITE kafir heads. Stillwater germination test 98%. 60 lb. Claude Randall, Nardin, Okla.

PROGRESSIVE EVERBEARING STRAWBERRY plants cheap. Satisfaction guaranteed or money back. J. N. Wright, Emporia, Kan.

GOOD SEED CORN—BOONE COUNTY White and Calico Corn, \$2.50 per bu. Shelled. Sacks extra. John Casey, St. Paul, Kan.

SEED CORN. BIG IOWA SILVER MINE. Matured early. Shelled and graded. \$3.50 per bu. Sack free. John Post, Mound City, Kan.

CHOICE SUDAN SEED FREE FROM JOHN-sen grass in 100 lb. lots 20c; smaller quantity 25c. R. C. Obrecht, R. No. 28, Topeka, Kan.

YELLOW SWEET CLOVER 20C LB. SOR-gum cane 10c lb. Sudan grass 20c lb. all recleaned and graded. Zlatnik Bros., Delia, Kan.

SEED CORN—CHOICE WHITE, SELECTED and hand shelled. For particulars address G. H. Wittram, 840 S. Judson St., Fort Scott, Kan.

SEED CORN: BOONE COUNTY WHITE. Reid's yellow dent, Calico corn. \$3.50 bushel. None better. Geo. Milner, Neosho Falls, Kan.

SPRING WHEAT SEED. MARQUIS, A-climated, recleaned, \$3 bu. F. O. B. J. W. Shoemaker, Narka, Kan.

BOONE CO. WHITE SEED CORN, TESTED, sacked, direct from farm \$3.50 bu. S. R. Huddleston, Garland, Kan.

1000 BU. CHOICE REID'S YELLOW DENT seed corn. My own growing. Good and dry. Will sure grow. J. O. Southerland, Windsor, Mo.

FOR SALE—ALFALFA: Fall River bottom grown white Kafir; Black hull cane seed; all 1917 crop. Ask for samples. A. M. Brandt, Severy, Kan.

SEED CORN FOR SALE. BOONE COUNTY White and Calico, at \$3 per bushel, sacks furnished. Tested. F. O. B. Yates Center, Kansas. F. W. Miller.

GUARANTEED, PURE, WHITE SWEET clover seed. Our own production only. Write for free sample and price. A. L. Woodhams, Grover, Colo.

ALEXANDER'S GOLD STANDARD, IOWA Silver Mine and Champion white dent seed corn, tested, \$4.00 per bu. J. G. Dempsey, Spring Hill, Kan., R. F. 2.

FIELD AND GARDEN SEEDS DIRECT TO grower at wholesale prices. Pinto beans, Cane, Sudan, Grass, etc. Inter-State Seed Co., Box 844, Clayton, N. Mex.

SUDAN—1917 CROP GUARANTEED FREE from Johnson grass, 20c per lb; \$18 per cwt.; also best grade alfalfa seed \$7.50 per bu. H. Strubing, Winfield, Kan.

ALFALFA SEED FROM NORTHWEST Kansas, 95% pure, good germination, \$7.50 per bushel. Order early. Freight will be slow. Geo. Bowman, Logan, Kan.

SUDAN SEED—GROWN ABOVE THE Johnson grass line; recleaned, sacks free. 25 lbs. or more 25c per lb., less quantities 10 cwt. H. G. Mosher, Schell City, Mo.

KAFIR CORN—BLACK HULLED WHITE, dwarf, graded, well matured, \$5 per cwt. Spanish peanuts \$3 per bushel. Sacked, our track. W. R. Hutton, Cordell, Okla.

CHOICE, PUREBRED KANS. SUNFLOWER seed corn. Fully guaranteed. Reference, Agricultural College. \$5 bu. Order quick. Tom R. Williams, Valley Center, Kan.

SEND \$2 AND WE WILL SEND YOU 250 Senator Dunlap and 100 Progressive Ever-bearing Strawberry plants (postage prepaid). Catalog free. Welch Nursery, Shenandoah, Ia.

FRED'S WHITE DENT SEED CORN. A drought resistant variety, shelled and graded. \$4.50 per bu. less quantities 10 cents per lb. Frank Carlson, Concordia, Kan.

FOR SALE—WHITE SILVER SKIN ONION sets, 10,000 to bushel, \$4.50 per bushel. F. O. B.; bushel lots only. Reference Citizens Bank. G. C. Curtis, R. R. No. 1, Hutchinson, Kansas.

BOONE COUNTY WHITE SEED CORN for sale; high germination, tested by Kansas college. Extra select. \$5. High grade \$3 per bushel. Frank White, R. R. No. 4, North Topeka, Kan.

SEEDS AND NURSERIES.

GOOD AMBER CANE SEED \$5.00 PER BU. Sacks extra. C. J. Miller, Stratton, Neb.

200 BUSHELS CHOICE RED AMBER CANE seed. \$10 cwt. J. W. Holm, White City, Kan.

WANT CANE SEED, MILLET, SUDAN Grass, Fancy Alfalfa, Hulled-Sweet Clover, Shalun or Egyptian Wheat, Bloody Butcher and Strawberry or Calico Corn. O'Bannon, Claremore, Okla.

SEED CORN: YELLOW DENT. HAS TEST-ed 97 per ct. Price \$3.50 per bushel; 10 bu. lots \$3.25. Why miss a crop when you can get reliable seed? Bags free. M. R. Mitchell, El Dorado Springs, Mo., R. R. 2.

KAFIR SEED, BLACK HULLED WHITE. Well matured and graded, 1917 crop. \$5 per lb. Send South for early maturing seed. Send self addressed and stamped envelope for samples. J. C. Lawson, Pawnee, Okla.

BLACK HULLED WHITE KAFIR, 100% germination. Test at Manhattan. \$3.50 per bu. in 2 bu. lots. Order direct from this ad. (Supply Limited). (Also 50 bu. cane seed). H. W. Chestnut, Kincaid, Kan.

WHIPPOORWILL OR, SPECKLED PEAR per pound 7c. Black Eyes 8c. Creams 10c. New crop planting seed, F. O. B. Winnsboro, cash with order. Nothing shipped by parcel post. Reference Merchants & Planters Bank. J. W. Rhone, Winnsboro, Texas.

ALFALFA SEED. HOME GROWN. NON-irrigated. Good germination. \$7.00 to \$10.00 bu. Sacks 50c. White Blossom Sweet clover, Amber and White Cane, local or car lots. Ask for prices and samples. L. A. Jordan Seed Co., Winona, Kan.

FROST PROOF CABBAGE PLANTS GROW-ing in open ready for shipping. Leading varieties 1000-\$2.50, 500-\$1.50 delivered. Potato plants 1000-\$3.25; 5000-\$5.00 delivered. You get plants or money back. Fort Worth Truck and Plant Grower, Ft. Worth, Tex.

FETERITA SEED FOR SALE. MATURED in 70 days; maize and kafir in same field complete failure; makes fine fodder; recleaned and graded; \$7.00 per cwt., my station sacks free. Satisfaction guaranteed or money back. J. H. Statton, Lexington, Kan., Clark County.

COWPEAS 5% CTS. PER LB. SACKED. Everbearing strawberry plants. Progressive 100 and Dunlap 150 for \$2.00. Gooseberry plants 20 for \$1.00. Honey Suckles, red or yellow. Pink Peonies, 15 cts. 2 for 25. Plant postage free. Lost Springs Nursery, Lost Springs, Kan.

ALFALFA SEED. ALL RECLEANED, non-irrigated, home grown, at from \$6.00 to \$12.00 per bu. Write for samples and prices on white or yellow Sweet clover, Sudan, Feterita, Red or White kafir, Sumach, Orange or Amber Cane Seed. The L. C. Adam Mer. Co., Cedar Vale, Kan.

STRAWBERRY PLANTS FOR SALE—PRO-gressive Everbearers, \$1.00, 100; \$7.50, 1,000; \$35.00, 5,000. Dunlaps, \$2.25, 1,000; \$10.00, 5,000, as long as they last. Packed F. O. B. American or Wells Fargo express. Healthy. State inspected. G. W. N. Howden, 725 Walnut St., Lawrence, Kan.

OKLA. DWARF AND STANDARD BROOM corn seed, cream and red dwarf maize and dwarf kafir. \$7.00, red kafir \$8.00. Feterita \$9.00. Amber orange and red top cost \$12.00. Sudan \$26.00. All per 100 lbs. Recleaned, freight prepaid. Prepaid express \$1.00 more. Claycomb Seed Store, Guymon, Okla.

EAR SEED CORN. HILDRETH'S YELLOW Dent heavy yielding big yellow kind, large select ears 1917 crop, well matured, will germinate 80%, will ship 100 bu. ears weighing about 85 pounds for one bushel. This allows surplus for testing out. \$5 bushel graded; fifty ears \$3. B. H. Pugh, R. F. D. No. 27, Topeka, Kansas.

WE HAVE SOME FINE WHITE, WELL matured Kafir seed, that is native grown and of excellent germination. It is put up in 2 bu. sacks only, 112 lbs. each. While it lasts we will make price of \$3.65 per bu. on cars here, in new sacks, sacks free. Good seed like this will be hard to get. Don't take a chance with inferior seed. Order this while you can get it, and know that it is good. Brooks Wholesale Co., Ft. Scott, Kan.

FOR \$1 WE WILL SEND YOU, ALL charges prepaid, 20 Apple, Pear or Apricot or 10 Cherry, all budded trees; or 25 grapes; or 100 Asparagus; or 50 Raspberry, Blackberry or Dewberry; 150 Spring or 75 Everbearing Strawberry plants; or 50 Red Cedar or Chinese Arbor-Vitae Seedlings; or 10 transplanted 4 year old Evergreens; or six climbing Roses 2 year old. Many other bargains. Catalog free. Manhattan Nursery, Manhattan, Kansas.

WE SELL SIMPKINS FAMOUS UDEAB early cotton seed. Ten to fifteen days earlier than other big boll cotton. Hundred pounds more lint per acre on account of early maturity. Gins 40 per cent lint. Packed in two and half bushel sacks two dollars fifty cents per bushel f. o. b. Chickasha, Okla., or two sixty-five delivered. Send no money with order to First National Bank to be paid on delivery of shipping receipt. Special prices on car lots. Hundreds of bushels sold. Testimonials from growers here on request. Phone, wire or write Baker Grain Co., Chickasha, Okla.

PATENTS.

PATENT BOOK SENT FREE TELLING how we protect and help market your invention. Also bulletins listing hundreds of inventions wanted. Send sketches for free opinion. Lancaster and Allwine, 457 Ouray Bldg., Washington, D. C.

WANTED AN IDEA! WHO CAN THINK of some simple thing to patent? Protect your ideas, they may bring you wealth. Write for "Needed Inventions" and "How to Get Your Patent and Your Money." Randolph & Co., Patent Attorneys, Dept. 25, Washington, D. C.

WANTED NEW IDEAS—WRITE FOR LIST of Patent Buyers and Inventions Wanted. \$1,000,000 in prizes offered for inventions. Send Sketch for free opinion of patentability. Our Four Book sent free. Patents advertised free. We assist inventor to sell their inventions. Victor J. Evans Co., Patent Attys., 825 Ninth, Washington, D. C.

Moisture Helps the Wheat

Rain or snow has fallen generally, and the crop situation is brighter. Oats sowing has started in many communities. The farm labor shortage is beginning to develop.

Gray County—Dry weather continues. Some wheat is alive but the general prospect is very poor. Stock has wintered well despite the shortage of feed. Corn and other grains are so high that hogs are fed at a loss.—A. E. Alexander, March 2.

Wilson County—Snow that fell February 27 provided some stock water. Wheat fields are greening up a bit and there is more corn in shock than for many years. Help is very scarce. Cattle are in fair condition and are high.—S. Canty, March 2.

Doniphan County—We had a light shower and 2 inches of snow February 28. Wheat appears to be in good condition. The county is having many sales and everything sells well. Most of the fat hogs have been shipped to market. Roads have been passable all winter.—C. Culp, Jr., March 1.

Osage County—We had a good rain February 28, but farmers still are compelled to haul water. Cattle are doing nicely and we have plenty of feed. More than the usual acreage of corn will be planted this season. Fat hogs are scarce.—H. L. Ferris, Mar. 1.

Lyon County—A heavy rain March 2 greatly benefited wheat and grass. With moderate weather this month pasture will be ready in April. We have plenty of feed. Thousands of bushels of wheat will be saved by our recent rain.—E. R. Griffith, March 3.

Jackson County—Wheat is showing green and apparently is in very good condition. There are numerous sales and everything is bringing high prices. Lots of corn has been marketed at \$1.50 to \$1.60. Hay \$20 to \$25. There is a big demand for rental farms.—F. O. Grubbs, March 2.

Riley County—Wheat secured plenty of moisture from a fine rain February 28. Many fat cattle and hogs have been sold. Not much spring work has been done. Little barley or spring wheat will be sown here, but a large acreage of oats will be planted. About the usual number of brood sows are on hand. Farmers are buying seeds for feed crops. Eggs 32c; corn \$1.50; cane seed \$7.—P. O. Hawkinson, March 2.

Morris County—Wheat has withstood the dry winter remarkably well. Oats sowing will begin March 4 if good weather continues. Ground is in fine condition to work. Seed corn is scarce and high. Mules are in demand at high prices but horses drag. Farmers are discouraged over the hog market situation.—J. R. Henry, March 2.

Allen County—A nice rain February 27 helped the wheat that lived thru the dry winter. A large acreage of oats will be put out this spring. Little fall plowing was done so the spring work will be heavy. Nearly all fat hogs have gone to market. Cattle have been well picked over. Hay \$20; eggs 29c; butterfat 50c.—George O. Johnson, March 1.

Elk County—We had a good rain March 2 and 3. Wheat is fine. Some farmers have sowed oats. Gardens are being planted. Pasture is \$1 a head. Hogs are very scarce. Corn \$1.25; oats 80c; eggs 28c; cream 40c.—C. C. Jones, Feb. 28.

Marshall County—Farmers are ready to begin operations as soon as spring sets in. About the usual acreage of oats will be sown. Public sales have been numerous. Car shortage remains about the same and a large amount of corn still is in the farmers' hands. Wheat is doing nicely since a good rain February 27. Good cows \$120 to \$150; corn \$1.40 to \$1.65; oats 85c; eggs 30c; cream 50c.—C. A. Kjellberg, March 2.

Pottawatomie County—Wheat prospects have improved since a good rain and snow on February 27 and 28. We may get one-half a crop now.—S. L. Knapp, March 1.

Graham County—We are having ideal spring weather. Stock is doing nicely and we have sufficient feed. Wheat does not look promising.—C. L. Kohler, March 2.

Kearney County—A good snow fell February 27 but high winds blew it off the wheat fields. Stock is wintering well, but feed is becoming scarce. No spring work has been done. Butterfat 50c; eggs 27c; no market for broomcorn.—A. M. Long, March 2.

Sheridan County—About 6 inches of wet snow fell February 27 and the warm sun is melting it rapidly. We look for a great improvement in the wheat, now. Livestock has wintered well. Eggs 36c; cream 52c; corn \$1.70.—R. S. Patterson, March 1.

Cloud County—Wheat was greatly benefited by a heavy snow February 27 and 28. The ground is in good condition for sowing oats. Very little disking has been done. Feed is holding out well. Some farmers report horses dying from an unknown cause. Roads are bad, seed corn is scarce.—W. H. Plumly, March 1.

Nemaha County—Livestock wintered well and is free of disease. Feed is plentiful. Good farm help is scarce. Numerous public sales are well attended. Wheat is in good condition in this county.—C. W. Ridgway, March 2.

Kingman County—Wheat in this county, especially on sandy soil, is doing nicely. The crop that did not come up last fall is growing well now, and with seasonable weather and a normal amount of rainfall Kingman county will produce an average crop. Farmers have spread lots of straw on the wheat fields which has helped, too. A number of straw spreaders have been ordered, but dealers cannot get them from the factory.—H. H. Rodman, March 1.

Republic County—The county is covered with a 2-inch blanket of wet snow which will soak down to the wheat roots and live them considerably. Some oats have been sowed. Farmers are preparing the ground for spring crops. Eggs 35c; corn \$1.35; oats 80c; butterfat 52c.—E. L. Shepard, Feb. 28.

Phillips County—A good snow which fell last week will put the wheat in fine condition. Feed is scarce and fodder sells at 75 cents a shock. Machinery and horses sell at good prices. Very few cattle or hogs are for sale. Eggs 28c; cream 47c; corn \$1.60.—Roy Stanley, March 2.

Rooks County—Some wheat fields are greening up while others are badly blown. Spring work will begin as soon as the frost is out of the ground. Some incubators have been set.—C. O. Thomas, March 1.

Decatur County—Several good snows have put the wheat in good condition. Perhaps 20 per cent was winter killed. Feed is becoming scarce, but stock is doing nicely. Farm sales are increasing in number. The pig crop will be light, as feed is too high in comparison with hog prices.—G. A. Jern, March 2.

WHAT BREEDERS ARE DOING

FRANK HOWARD,
Manager Livestock Department.

FIELDMEN.

A. B. Hunter, S. W. Kansas and Okla., 128 Grace St., Wichita, Kan.
John W. Johnson, N. Kansas, S. Neb. and Ia., 320 Lincoln St., Topeka, Kan.
Jesse R. Johnson, Nebraska and Iowa, 1837 South 16th St., Lincoln, Neb.
C. H. Hay, S. E. Kan. and Missouri, 4204 Windsor Ave., Kansas City, Mo.

PUREBRED STOCK SALES.

Claim dates for public sales will be published free when such sales are to be advertised in the Farmers Mail and Breeze. Otherwise they will be charged for at regular rates.

Jacks, Jennets and Stallions.

March 14—G. M. Scott, Rea, Mo., sale at Savannah, Mo.
March 20—W. J. Finley, Higginsville, Mo.
Mar. 26—H. T. Hineman, Dighton, Kan.

Aberdeen Angus Cattle.

Apr. 5—Wm. Palmer, Liberty, Neb.
April 3—Carroll Co. Breeders' and Feeders' association, Carrollton, Mo.

Hereford Cattle.

April 2—W. I. Bowman & Co., Ness City, Kan. Sale at Hutchinson, Kan.
April 5, 6—S. E. Kan. Hereford Breeder, Coffeyville, Kan., Sam'l Drybread, Elk City, Kan., Mgr.

Holstein Cattle.

March 19—Standard Dairy Co., Wichita, Kansas.
Mar. 20—E. J. Dixon and Chas. A. Smedley, Agra, Kan.
Mar. 26—Kansas State Holstein Breeders' sale at Topeka Fair Grounds, W. H. Mott, Sec., Hutchinson, Kan.

Mar. 27—F. J. Searle, Oskaloosa, Kan., dispersion. Sale at Topeka Fair Grounds.
April 17—Nebraska Holstein Breeders, State Fair Grounds, Lincoln, Neb.

Polled Durham Cattle.

Mar. 26-27-28-29—H. C. McKelvie, Sale Mgr., Lincoln, Neb., sale at Omaha, Neb.
April 10—T. M. Willson, Lebanon, Kan.

Shorthorn Cattle.

Mar. 16—Interstate Breeders' Association, Hebron, Neb., M. C. McMahon, Sec.
Mar. 26-27-28-29—H. C. McKelvie, Sale Mgr., Lincoln, Neb., sale at Omaha, Neb.

Shorthorn Week, Fair Grounds, Oklahoma City, Okla. Under auspices Oklahoma Shorthorn Breeders' Assn., S. B. Jackson, Mgr., El Reno, Okla.

Mar. 26—Breeders' Shorthorn Sale, Oklahoma City.
Mar. 27—J. R. Whisler, Watonga, Okla. Sale at Oklahoma City.

Mar. 28—Scott & Wolsey, Watonga, Okla. Sale at Oklahoma City.
Mar. 29—Breeders' Shorthorn Sale, Oklahoma City.

March 30—Southwest Missouri Shorthorn Breeders' Association Sale at Springfield, Mo. T. A. Ewing, Morrisville, Mo., Sale Manager.

April 2—Blank Bros. & Kleen, Franklin, Neb. Sale at Hastings, Neb.
Apr. 3-4—Highline Shorthorn Breeders' Association, Farnam, Neb. E. W. Crossgrove, Mgr.

April 5, 6—S. E. Kan. Shorthorn Breeder, Coffeyville, Kan., H. M. Hill, Lafontaine, Kan., Mgr.
April 6—Thomas Andrews, Cambridge, Neb., and A. C. Shellenberger, Alma, Neb. Sale at Cambridge.

April 25—Richard Foenigk, Morganville, Kan.
April 25—Richard Roenigh, Morganville, Kan., at Clay Center, Kan.

Duroc Jersey Hogs.

Mar. 18—Geo. Briggs & Sons, Clay Center, Neb.
Mar. 19—Robt. E. Steele, Falls City, Neb.
Apr. 24—Laptad Stock Farm, Lawrence, Kan.

Poland China Hogs.

March 15—H. E. Myers, Gardner, Kan.
April 3—Ross & Vincent, Sterling, Kan.
April 4—A. J. Erhart & Sons, Ness City, Kan. Sale at Hutchinson, Kan.

April 10—T. M. Willson, Lebanon, Kan.
Apr. 24—Laptad Stock Farm, Lawrence, Kan.

S. W. Kansas and Oklahoma

BY A. B. HUNTER.

If you want a Red Polled bull worth the money asked, write or call on I. W. Poulton, Medora, Kan. Do it now.—Advertisement.

Last Call—Meyers's Poland Sale.

As we advertised in the last issue of the Mail and Breeze, Harry E. Meyers of Gardner, Kan., will offer you March 15, a class of sows and gilts second to none that have sold in this section this year. They are by such sires as Giant Joe, Wedd's Long King, Bridge's Bob Wonder, King of Wonders, Big Defender, Long Jumbo 2nd, Giant King and Model Big Bob; and are bred for seasonable litters to Giant Joe, Big Timm's Best, King of All 2nd and others. There are several special attractions such as the great sow Queen of Wonders, four daughters of the great brood sow sire, Wedd's Long King, some good ones by Giant Joe and Giant King. All sows and gilts are immune and we are sure that you will be highly pleased with them if you come to the sale. Mail bids should be sent to C. H. Hay in care of Mr. Meyers.—Advertisement.

Hereford Sale at Hutchinson.

W. I. Bowman & Co., Ness City, Kan., will sell Herefords at auction at Hutchinson, Kansas, April 2. The offering will consist of 80 cows and heifers and 30 young bulls mostly yearling and coming two-year-olds. They will also sell two carloads of yearling range bulls. These cattle are all Bowman & Co. bred and raised Herefords and are by and bred to such great sires as Generous 5th, Imported Shucknall Monarch and Lawrence Fairfax. This great herd of Herefords has not only stamped its effect on the whole Hereford cattle situation of western Kansas, setting a pattern for more size, bone and substance, but surrounding states are learning the real merits of this great herd. One of Bowman & Co.'s recent sales was a car load of yearling and two-year-old bulls to Pickett & Newman, Midvale, Idaho, and just what these bulls have done for western Kansas in producing more bone, size and substance will be done for the herds of Idaho who get these

rugged big boned Bowman bulls. Please read display ad this issue regarding their sale at Hutchinson, April 2. Write today for catalog mentioning Farmers Mail and Breeze.—Advertisement.

N. Kansas, S. Nebr. and Ia.

BY JOHN W. JOHNSON.

In reporting the combination sale of Duroc Jerseys at Clay Center, Kan., last week I failed to say the top was \$270 paid by Lester Coad for a splendid gilt consigned by Glen Keesecker, Washington, Kan. In the report of the Marion Poland Duroc Jersey sale at Sabetha, Kan., the printer made me say the top was \$30 when it should have been \$130.—Advertisement.

Meall Brothers, Cawker City, Kan., are advertising in the Farmers Mail and Breeze some choice Scotch and Scotch topped bulls from 10 to 22 months old. They are very choice and priced right. Reds and roans. They also have for sale some choice bred cows that are real producers. They have over 100 head in their herd and must reduce it. Write them for descriptions and prices. Look up their advertisement in this issue of the Farmers Mail and Breeze.—Advertisement.

W. W. Jones Sells Durocs March 15.

W. W. Jones, Clay Center, Kan., is a well known breeder of Duroc Jerseys of the very highest quality and the best of breeding, who has decided to further reduce his herd and will on March 15 hold a sale at the farm just west of town. He will sell nine sows that will farrow soon after the sale or will be sold with litters. Also nine fat gilts will be sold and a fall boar. The breeding is of the most popular blood lines and every animal sold is a real attraction. Write him today for the catalog. Bids may be sent to J. W. Johnson in care of Mr. Jones, Clay Center. He will also sell six high grade Holstein cows that are bred to registered bulls and to freshen soon. Remember the date, March 15.—Advertisement.

Searle & Cottle's Durocs.

The well known firm of Searle & Cottle of Berryton, Kan., breeders of high class Duroc Jersey hogs, change their card announcement in this issue of Farmers Mail and Breeze. They have sold the last of their bred gilts. Their offering at this time includes fat pigs of either sex. These pigs have made a nice growth. They will weigh in the neighborhood of 150 pounds and are in good condition. Searle & Cottle have the reputation of winning the lion's share of the ribbons at the Topeka Fair for the last several years. The firm is thoroughly reliable and guarantees all the descriptions. The prices are always reasonable. Write them if interested in good Durocs.—Advertisement.

Slate Sells Poland Chinas March 14.

D. A. Slate, Glen Elder, Kan., is a well known Poland China breeder of that place that has bred registered Poland Chinas for years. On March 14 he will sell at the J. M. Kepple farm joining town 19 choice sows, 11 of them that are registered and the rest cannot be recorded. All are good and bred for spring farrow. Included in the sale will be four September boars that are eligible to register and well bred and mighty desirable for use this spring. He is also selling 15 high grade Shorthorn cows that are good milkers and fresh now. Also a few young horses. His catalog is out and ready to mail as soon as you request it. But just get ready and go to the sale and you will find everything just as represented. "Dave" Slate is well known as a breeder who is absolutely reliable and his word is as good as his bond. Write him for the catalog today.—Advertisement.

Turinsky's Durocs Averaged \$63.

A. J. Turinsky's Duroc Jersey bred sow sale at Barnes, Kan., last Saturday, resulted in an average of \$63 on 44 head. \$2,775.50 was received for the 44 head. The top, number nine in the catalog, went to Col. Jesse Howell, Herkimer, Kan., at \$8. It was a very even sale and was satisfactory to Mr. Turinsky. Glen Keesecker, Washington, Kan., was as usual a good bidder on the tops and the gilt offered by Mr. Turinsky for the benefit of the Red Cross. She brought \$76 and was one of the choice gilts in the sale but bred a little late. The entire offering was April and May gilts with the exception of a few very choice tried sows, all bred for late farrow. W. H. Schroyer, Miltonvale, Kan., was the heaviest buyer, buying 13 head on a mail order. The offering was exceptionally good and well grown and a very even bunch of young gilts.—Advertisement.

Morrill's Holstein Sale.

The W. O. Morrill & Son sale of registered Holstein cattle at Summerfield, Kan., last Wednesday, was well attended by a representative lot of Kansas and Nebraska breeders. Twenty cows and heifers sold for \$4,470 and averaged \$223.50. Four bulls of serviceable ages averaged \$155.25. There were a number of Northern Kansas breeders who consigned one or more animals to the sale. Ira Collins of the Collins Farms, Sabetha, consigned a young bull, one year old in March and of wonderful breeding. He sold for \$205, which was not enough, but those present did not seem to be in the market for bulls. It was a very fair sale and satisfactory to all concerned but much of the offering was sold below its real value as that class of Holsteins are selling. The day was very stormy and many were undoubtedly kept away because of the storm. Col. Jas. T. McCulloch did the selling on the block, assisted in the ring by Col. Frank Kenney.—Advertisement.

Combination Holstein Sale.

The Holstein-Friesian Breeders association of Kansas is without question one of the strongest organizations of its kind in the west. The date of their annual meeting is March 25 which will be followed in the evening by a big banquet and program with speakers of prominence. The meetings will be held in the rooms of the Chamber of Commerce and the banquet in the evening is given by the commercial club and all breeders and those interested in Holsteins are welcome. On Tuesday the 26th which is the day following the annual meeting the big consignment sale will be held in the cattle barns at the fair grounds. 120 head have been consigned by 20 of the best known breeders of pure bred Holsteins in Kansas. All are members of the association and every consignor has gone the limit in the way of the best in his herd. This is not idle talk but the truth and this offering on March 26 at the fair grounds, Topeka, Kan., will be one of the valuable offerings for Holsteins made this season any-

where. The sales committee has been busy for months in securing these consignments and each breeder has been limited to a certain number and had it impressed upon him that nothing but actual tops could be put in this sale. The catalog which is complete in every way will be mailed upon application to Secretary W. H. Mott, Hutchinson, Kan. The big half page advertisement appears in this issue of the Farmers Mail and Breeze. F. J. Searle, Oskaloosa, Kan., who is the well known proprietor of the Sunflower herd of registered Holsteins-Friesian cattle, sold his farm this last month and a dispersion of this great herd will occur the day following the association sale at the same place and his beautiful catalog is now ready to mail to those who are interested in the best in Holsteins. This dispersion of 75 head of registered cows, heifers and a few young bulls should draw breeders from all over the country. No better lot of cattle has been sold in recent years than will go in these two great sales of 200 head March 26-27, Topeka, Kan. Come to the meeting and stay for the big sales. It is your opportunity. Address W. H. Mott, Hutchinson, Kan., for the association sale catalog and F. J. Searle for his big catalog. Both are free for the asking. Mention Farmers Mail and Breeze when writing to either party.—Advertisement.

Holstein Dispersion March 20.

E. J. Dixon, Agra, Kan., and C. A. Smedley, Kensington, Kan., are breeders of pure bred Holstein Friesian cattle at these respective points who have recently decided to disperse their herds. In their big dispersion sale of both herds at the sale pavilion Kensington, Kan., March 20.

BERKSHIRE HOGS.

A Few Choice Bred Berkshire Sows

R. C. OBRECHT, R. 28, TOPEKA, KANSAS

HORSES.

For Sale Or Trade Registered French draft at Price right. D. D. HOLCOMB, CANTON, KAN.

Pleasant View Stock Farm

For sale: two yearling, registered Percheron stallions, 1600 lbs. each. Priced right. HALLORAN & CAMERILL, OTTAWA, ILL.

FOR SALE OR TRADE

Registered French Draft Stallion, 3 years old, weight 1850 pounds, dapple grey, extra heavy bone, extra good breeder, and pure kind disposition. Will trade for young stock. J. W. LOCK, BURLINGTON, KANSAS.

Prize Winning Percherons

at a bargain. 2 stallions coming 2 and 4 years old. Reg. 1st P. S. of A. breeding stud colts. One span of aged brood mares, both in foal. C. H. WEMPE, Seneca, Kansas.

50—Registered Stallions—50

30 Belgians. Biggest collection in the West. Also Percherons and Shires. One to five years old, mostly out of imported sires and dams. Barn near M. T. BERNARD, GRAND ISLAND, NEBRASKA.

For Sale—One Registered Black Percheron Stallion

four year old, will make a ton horse. One good black yearling with white points, 6 year old, and two breeders. R. W. MILLER, NEKOMA, KANSAS.

For Sale: One Black Percheron Stallion

six years old, a ton horse. One black Percheron mare five years old. Both are registered. Both are my own raising. JOHN LORTSCHER, Fairview, Kan.

Percherons—Belgians—Shires

2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings, I can spare 75 young registered mares in foal. One of the largest breeding herds in the world. FRED CHANDLER, Route 7, Chariton, Iowa. Above Kan. City.

FOR SALE TWO REGISTERED PERCHERON STALLIONS

coming 2 years old in March. Large growthy fellows, casting breeding. One pair Registered Mare, one pair registered fillies. Farmer's prices. Cottonwood Stock Farm, Rock Island Highway, 1 Mi. west of Clayton, Kan.

Percheron Stallion to Trade

For Holstein cows or heifers. He is registered, black, four years old. A good trade. Write soon. ALEX. C. HILL, HOPE, KAN. (Dickinson County)

For Sale: Pure Bred Percheron Stallion

Bay, 7 yrs. old, weight 2000 pounds, sound, sure and extra good breeder. He has colts, coming 2 years, weight 1500. SAM BORK, Miltonvale, Kan.

Riley County Breeding Farm

Headed by the Grand Champion Jean 761st, 5600 lbs. Stired by the \$10,000 Champion Carnot. Season of help forces me to reduce my herd. Offering for sale my old herd horses Cassin, 10 yrs. old, by Casino (Casinir was the Grand Champion at St. Louis World's Fair.) Cavalier 9183, bay, 2 years old, weight 1900 lbs., sound. 2 stallions, coming 3 years old, and some young fillies. 2 five-year-old jacks, 1 will weigh 1200 pounds. ED. NICKELSON, LEONARDVILLE, KAN. (Hickory Co.)

WOODS BROS. CO., LINCOLN, NEBR.,

Imported and Home-Bred

Percherons, Belgians and Shires

75 young stallions of the three breeds—coming 2, 3 and 4 years old and a few older horses. We have never had such a collection of real drafters. Come and make your choice. Our prices, terms, and guarantee will suit you. Barns opposite State Farm. A. P. COON, MANAGER



HAMPSHIRE HOGS.
REGISTERED HAMPSHIRE 150 gilts and sows, all ages. Cholera immunized. Satisfaction guaranteed. C. E. LOWRY, Oxford, Kan.
CHOICE SPRING BOARS AND GILTS bred or open, on hand, a son of the undefeated Messenger Boy; also a nice lot of fall pigs. F. T. Howell, Frankfort, Kan.

Hampshires On Approval
 fair choice bred gilts for sale. Fall pigs, either sex, and sows. F. B. WEMPE, FRANKFORT, KAN.

SHAW'S HAMPSHIRE
 200 head Messenger Boy breeding. Bred sows and gilts, service boars, fall pigs, all immune, satisfaction guaranteed. WALTER SHAW, R. 6, Phone 3918, Derby, Kan. WICHITA, KAN.

500 HAMPSHIRE BRED
 sows and gilts bred to Grand Champion boars nicely bred, large litters, healthiest and best hustlers in the world. Will make more dollars from pasture than any hog grown. Write SCUDDER BROS., DONIPHAN, NEBRASKA.

POLAND CHINA HOGS.
SPOTTED POLANDS Boars large enough for spring service. CHAS. H. REDFIELD, BUCKLIN, KANSAS.

Spotted Poland China Gilts
 go fall and spring gilts bred and open. A few good sows. Also some good spring boars. All well spotted. Best breeding condition. Write at once. H. McCUNE, (Clay Co.) LONGFORD, KANSAS.

Special Prices on Some Choice Boar Pigs
 very nicely spotted, heavy boned, the big type with size and quality. CARL F. SMITH, LEONARDVILLE, KAN.

FAIRVIEW POLAND CHINAS
 40 heavy-boned fall pigs. Can furnish pairs, not related. Also a few serviceable boars. Pedigreed and priced to sell. F. L. WARE & SON, PAOLA, KANSAS

Townview Polands
 herd headed by the great young boar, King Wonders Giant 2238. I can ship spring pigs, either sex, or young herds not related. Boars ready for service. Bred gilts. Prices and hogs are right. Chas. E. Greene, Peabody, Kansas

FORTY BIG TYPE BOARS
 very big husky spring boars, sired by Illustrators 2nd and 3rd, G. M.'s Defender, G. M.'s Crimson Wonder, C. W. Main Jr., Great Wonder and Critic D. These are some big mature sows. Immunized. Priced to sell. E. M. SHEPHERD, LYONS, KANSAS

ERHARTS' BIG POLANDS
 A few September and October boars and choice spring pigs either sex out of some of our best herd sows and sired by the grand champion Big Hadley Jr. and Columbus Defender, first in class at Topeka State Fair and second in futurity class at Nebraska State Fair. Priced right, quality considered. A. J. ERHART & SONS, Ness City, Kan.

50 BRED POLAND CHINA SOWS AND GILTS
 100 fall pigs, either sex, at private sale. Best of Big Type breeding. PLAINVIEW HOG AND SEED FARM, Frank J. Rist, Prop. Humboldt, Nebraska.

Mar. Boars
 and gilts sired by Hercules 2d and Grandview Wonder. 75 fall pigs for sale, in pairs and trios not related. (Picture of Hercules 2d.) ANDREW KOSAR, DELPHOS, KAN.

BIG WONDER 281929
 The outstanding spring yearling son of the noted Big Bob Wonder now at head of herd. He was first in Junior Yearling class at Topeka and second at the National Swine Show, at Omaha, against the world. A few choice spring boars priced for quick sale. Write your wants today. V. O. Johnson, Aulne, Kan.

Engleman's POLANDS
 The best that the breed affords. I have decided not to hold a sale and am offering at private treaty 25 of the best bred gilts in the southwest. Every one an outstanding individual and immune. They are bred to Buster King by Giant Buster. Blackhawk by Storey's A Wonder. Chief Model by Chief Leader. We are pricing these gilts at about one half of what you would pay for them in a sale. Write for prices. We guarantee satisfaction or your money back. ENGLEMAN STOCK FARMS, Fredonia, Kans.

ington, Kan., March 20, they will offer 45 head of purebred cattle, 31 of them registered and the other 14 cannot be registered because the papers are not procurable. Of the 31 that are now registered, seven are cows, all giving milk but one and she will be fresh soon, seven two-year-old heifers just fresh or to be fresh soon, five yearling heifers fresh next September and October. There will be 12 calves in all, eight heifers and four bulls. Sixteen of these registered cattle are by a splendid grandson of King of Pontiacs. The balance of them are closely related to De Kol 2nd's Butter Boy 3rd and Sarcastic Lad. The sale will be held in a comfortable sale barn and the catalogs are ready to mail now. Address either E. J. Dixon, Agr. Kan., or C. A. Smedley, Kensington, Kan., or W. H. Mott, Herlington, Kan., who will manage the sale.—Advertisement.

\$400 Top on Neff's Holsteins.
 The dispersion sale of Warren S. Neff's Holsteins at Glen Elder, Kan., last Monday was highly satisfactory. The herd bull, which was the big attraction was not sold, owing to the fact that he was out of condition and Mr. Neff withdrew him from the sale. He will be offered later at private sale. Among the prominent breeders who attended was Ben Schneider, Nortonville, Kan., who is the president of the Holstein Friesian Association of Kansas. He made a short talk at the beginning of the sale which was well received. His son, William, was with him. G. Reynolds, Kirwin, Kan.; C. L. Brown, Beloit, Kan.; Mr. Hurlock, Lincoln, Kan.; Grant Crawford, Lincoln, Kan.; Mr. Gish, Enterprise, Kan.; Mr. Koenig, Solomon, Kan.; Geo. Moorehead, Glen Elder, Kan.; Mr. Schwartz, Bancroft, Kan., and a number of others were the principal bidders and buyers. C. L. Brown topped the sale when he paid \$400 for the six-year-old cow, Lady Hermine. Mr. Neff was well pleased with the result of the sale. Twenty-nine head of cows, heifers and calves sold for \$3,800 and averaged \$139. Only a few of them were purebreds that could be recorded. But it was a splendid offering and reflected credit on Mr. Neff. Col. Will Myers and Col. Branson of Lincoln, Neb., conducted the sale.—Advertisement.

Searle's Holstein Dispersion Sale.
 F. J. Searle, Oskaloosa, Kan., has sold his fine dairy farm and Holstein breeding establishment at that place and will disperse his great herd of registered Holsteins at the fair grounds, Topeka, Kan., the day following the combination sale. The date of Mr. Searle's sale is Wednesday, March 27. The catalog is being compiled now and will be ready to mail by the time this is off the press. No dispersion of Holsteins in recent years should attract buyers who really want the best like this sale should do. Following as it does the big consignment sale at the Topeka fair grounds the day before (March 26) it affords a great opportunity to attend both sales with the same expense. One of the great herd bulls of the breed will be sold in this big dispersion. It is impossible to tell of all the good things in this sale in this fieldnote. You must get the catalog if you are a Holstein breeder or admirer and read the story yourself. Mr. Searle is well and favorably known all over the west because of the high class Holsteins he has owned and developed. Don't overlook this opportunity as dispersions of this character are rare indeed. Write Mr. Searle at once for his big catalog and for any other information you desire. Look up his advertisement in this issue of the Farmers Mail and Breeze and write him before you forget it.—Advertisement.

Nebraska and Iowa
 BY JESSE R. JOHNSON.
 Geo. Briggs & Sons, Clay Center, Neb., announce in this issue of the Farmers Mail and Breeze a public sale to be held March 18. Their offering will include 60 bred sows, and 5 fall boars by a son of Orion's Cherry King. The sows are by Illustrators 2nd, Joe Orion 5th, Pal's Giant and Pal's Col., and are bred to Great Wonder 2nd, Joe Orion 5th, Pal's Chief and Illustrators 2nd. The hogs that will go in this sale have had the run of the farm and they are in fine breeding condition. A few of the sows will have litters by sale day, and the balance are due to farrow soon. Write today for a catalog of this sale to Geo. Briggs & Son, Clay Center, Neb., and mention Farmers Mail and Breeze.—Advertisement.

Another Big Duroc Bred Sow Sale.
 Robt. E. Steele, one of Nebraska's leading Duroc Jersey breeders, will hold another bred sow sale on March 19. Mr. Steele is located at Falls City and his Durocs are finding great favor over Nebraska and adjoining states. Since his sale in February Mr. Steele has picked up a few mighty choice bred gilts that will go into this sale as attractions. Among them will be a half dozen good ones sired by the great breeding boar, National Chief, and bred to the noted Iowa boar, Disturber Of Idleness. These good gilts, together with some picked from his own raising, will make up the March 19 sale. It will be a first class offering in every way and readers of this paper that are unable to attend should send bids to Jesse R. Johnson in Mr. Steele's care at Falls City, Neb.—Advertisement.

Shorthorn Sale at Hebron, Neb.
 The Interstate Pure Bred Live Stock breeders will hold their first annual Shorthorn sale on Saturday, March 16. The sale will be held in the big new sale pavilion at Hebron, Neb., and everyone attending will be accorded first class treatment. The cattle consigned to this sale come from the good herds located in the counties adjoining Thayer both in Nebraska and Kansas. None of the breeders living in this locality breed large numbers but they breed good ones and this sale will afford a good opportunity for buyers to make good selections. About 40 will be sold, mostly young bulls and heifers and some choice mature bred cows. A catalog is being issued that gives all information. It will be sent upon request. Please mention this paper when writing. Parties asking for catalog should address M. C. Mahan, secretary, Hebron Sales Pavilion Co., Hebron, Neb.—Advertisement.

Bob Steele Sells Durocs March 19th.
 Robt. E. Steele, Falls City, Neb., one of Nebraska's foremost Duroc Jersey breeders, announces another sale to be held March 19th. Mr. Steele has already held one of the best bred sow sales of the season, but has plenty of mighty good ones left for the second sale. The offering is the same as the first one, only of course bred a trifle later and showing better. Of the 40 head selling, several will be fall yearlings, the remainder big well grown spring gilts, bred for the latter part of March and April

JACKS AND JENNETS.
Stallions and Jacks 40 Percheron stallions and mares from weanlings up. 20 big boned Mammoth Jacks. 10 fine jennets at reasonable prices. Al E. Smith, Lawrence, Kan.
JACKS, JENNETS, PERCHERONS
 Four good jacks, one good Percheron stallion, all registered or eligible. Two good jennets. Priced right. ALFRED LOCKWOOD, Mound City, Kans.

34—MULES—34
 For Sale—34 Weanling mules. Mostly mares. Heavy bone and best quality. Carefully selected. Mothers are high grade Percheron mares. Priced right. F. M. GILTNER, WINFIELD, KANSAS

Jacks, Jennys and Percherons
 Four good Jacks and four good Percheron Stallions of breeding age; also a number of extra good Jennys. Priced to sell. M. G. BIGHAM & SON, OZAWKIE, KAN., 20 MI. N.E. Topeka

Malone Bros., JACKS and Percherons
 We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs old, all over 2 yrs. well broke to serve. Several fine herd leaders among them. Also jennets in foal to home bred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on J. P. & M. H. MALONE, CHASE, KAN.

MAMMOTH JACKS
 40 jacks and jennets, 3 to 7 years old. Big boned, young jacks, broke to service. A good assortment from which to select. Marked down to rock bottom prices. Philip Walker, MOLINE, ELK COUNTY, KANSAS

CHESTER WHITE AND O. I. C. HOGS.
CHESTER WHITE HOGS Five good smooth spring boars for sale. E. E. SMILEY, PERTH, KANSAS.

I must close out my entire herd of Chester Whites. If you want a good tried sow or herd boar write me at once. Also summer boars and gilts. F. C. GOODWIN, RUSSELL, KANSAS.

For Sale—Registered Bred Chester-White Gilts
 G. A. STERBENZ, OSAWATOMIE, KAN.

Kansas Herd of Chester Whites
 25 Fall boars for sale, extra choice. A few bred gilts still on hand. ARTHUR MOSSE, R. 5, Leavenworth, Kan.

DUROC JERSEYS.
GARRETT'S DUROCS Bred gilts special prices on Sept. male pigs with up to date breeding. R. T. & W. J. GARRETT, STEELE CITY, NEB.
Duroc Bred Gilts
 Spring gilts bred to farrow this spring. Popular breeding. Farmers prices. Write at once. W. J. HARRISON, AXTELL, KANSAS

IMMUNE RECORDED DUROC GILTS
 with size, bone and stretch, guaranteed in farrow. Shipped to you before you pay. F. C. CROCKER, BOX B, FILLEY, NEBRASKA

Wooddell's Durocs
 20 March and April boars ready for service. They are sons of Crimson Wonder IV, and out of large, roomy sows of fashionable breeding. Priced for quick sale. All immune and guaranteed. G. B. Wooddell, Winfield, Kan.

Durocs of Size and Quality
 Herd headed by Reed's Gan6, first prize boar at three state fairs. Special prices on bred gilts and boars, from Golden Model and Critic Breeding. JOHN A. REED & SONS, LYONS, KANSAS.

BONNIE VIEW STOCK FARM
DUROC-JERSEYS
 Fall pigs, either sex, and prize winning blood for sale at reasonable prices. SEARLE & COTTLE, BERRYTON, KANSAS

Duroc-Jerseys
 Johnson Workman, Russell, Kansas

Jones Sells On Approval
 Bred Sow Sale March 15. Write For Catalog W. W. Jones, Clay Center, Kan.

TAYLOR'S WORLD BEATERS
 Service boars from 700-pound show sows at a bargain. Choice weaned pigs both sex, all registered. Pigs will be prepaid to your depot. JAMES L. TAYLOR, OLEAN, Miller County, MO.

Bancroft's Durocs
 September boars and gilts guaranteed immune; also my herd boar D. O.'s Critic, No. 185197, farrowed March 2, 1915, weighs 770 pounds in every day breeding shape. Easy a 1,000-pound boar in show condition. D. O. BANCROFT, OSBORNE, KANSAS

DUROC JERSEY HOGS.
TRUMBO'S DUROCS
 Herd Boars, Constructor 187651, and Constructor Jr. 234269. First prize boar pig Kansas State Fair, 1917. A few fall pigs for sale. W. W. TRUMBO, PEABODY, KANSAS

Sept. and Oct. Boars and Gilts
 20 Duroc Jersey boars and gilts of top breeding. Good individuals. I want to move them before my spring pigs arrive. F. J. MOSER, GOFF, KANSAS

ABERDEEN ANGUS CATTLE.
Aberdeen Angus Cattle
 Herd headed by Louis of View-point 4th. 150624, half brother to the Champion cow of America. Johnson Workman, Russell, Kan.

15 ANGUS BULLS
 10 mos. to 2 yrs. old, out of Good Straus and a fine sire Millale Prince Albert 157143. A few cows and heifers. H. L. KNISELY & SON, Talmage, Kansas.

FIVE ANGUS BULLS
 20 months old. All registered and breeding of popular blood lines of today. For prices and descriptions address E. J. SAMPSON, OAK HILL, KANSAS

Sutton Angus Farms
 40 Bulls—50 Heifers
 Also 25 Bred Heifers
 Prices and descriptions by return mail. Sutton & Wells, Russell, Kan.

Duroc Jersey Bred Sows
At Auction
 Clay Center, Kan.
March 15
 9 bred sows or with litters
 These sows carry the best blood lines of the breed and bred to
Jones Orion Cherry King
 King of Cols. 6th
 9 fall gilts; best of up to date breeding.
 One fall boar.
 Six high grade Holstein cows bred to registered bulls.
 Sale at farm west edge of town
W. W. Jones
 Clay Center, Kan.
 Jas T. McCulloch, Auctioneer.
 J. W. Johnson, Fieldman.
 Catalogs ready to mail.

SHORTHORN CATTLE.

PURE BRED DAIRY SHORTHORNS
Double Mary (pure Bates), and Rose of Sharon families.
Some fine young bulls. R. M. ANDERSON, Beloit, Kan.

The Shorthorn Is The Breed For You

Shorthorn steers at the International, Chicago, made the highest dressed weight percentage of any breed. 60 yearlings averaged 65.3%.

Shorthorn steers were grand champions at Denver, Portland, Salt Lake City and Chicago. Shorthorn cows are making records up to 17,564 lbs. of milk and 589.7 lbs. of butter fat per year. Address Dept. G

American Shorthorn Breeders' Ass'n.,
13 Dexter Park Ave., Chicago, Ill.

Scotch and Scotch Topped Bulls for sale

15 head that are 10 to 12 months old, handled to insure future usefulness. Write for prices.

C. W. TAYLOR ABILENE, KAN.
(Dickinson County)

Cumberland's Knight

by Cumberland's Last sired the five young bulls from 8 to 13 months old (reds and roans) that I offer for sale. Parties met at Wamego, Kan. Phone 2218, Wamego. These bulls are right and priced right.

W. F. Ferguson, Westmoreland, Kansas.

Stunkel's Shorthorns

Scotch and Scotch Topped Herd headed by Cumberland Diamond bulls, reds and roans 8 to 24 months old, out of cows strong in the blood of Victor Orange and Star Goods. No females at present to spare. 15 miles south of Wichita on Rock Island and Santa Fe.

E. L. STUNKEL, PECK, KANSAS.

SHORTHORN BULLS

5 that are ready for service—12 to 15 months old.
15 that are from 8 to 10 months old. Bulls from a working herd that will make good in your herd. Prices right.

V. A. Plymott, Barnard, Kansas

Shorthorns

Young Scotch Topped Bulls
Cows and Heifers For Sale

Scarcity of pasture compels me to sell.

Poland China Bred Glits

A few choice big type glits bred for spring farrow. Address

R. B. DONHAM, TALMO, KANS.
(Republic County.)

50—Bulls for Sale—50 Shorthorns and Herefords

in age from 12 to 24 months. Choice selections. Prices range from \$100 up. Also Shorthorn females of different ages. Inspection invited.

200 bred ewes.

Elmendale Farm, Fairbury, Nebr.

Lancaster Shorthorns

Lancaster, Kan., Atchison Co.
Imported and home bred cattle. Headquarters for herd bulls. All within three miles of Lancaster. Twelve miles from Atchison. Best shipping facilities.

Ed Hegland

Some choice cows and heifers and young bulls for sale.

K. G. Gigstad

20 bulls, 9 to 7 months old. Reds and roans.

W. H. Graner

12 yearling bulls, 8 and 9 months old.

H. C. Graner

4 yearling bulls, also bred cows.

C. A. Scholz

Bulls from six to eleven months old, by Rosedale 367, 546 and Orange Victor 454255.

Address these breeders at Lancaster, Kan.

farrow, mostly to the big bred boars. Sensation Wonder 3d and Creator, one of the greatest young boars going. Among the real attractions will be six spring glits, sired by the noted boar National Chief and bred to the great breeding boar Disturber of Idle Wild. Many others come direct from the best Eastern herds and would be attractions in almost any sale, plenty of good ones are by Sensation Wonder 3d. A catalog has been issued that gives all necessary information. Write for it at once and mention this paper. Parties interested and unable to attend should send bids to Jesse R. or J. W. Johnson in Mr. Steele's care at Falls City, Neb.—Advertisement.

Where Are the Horses?

"The expected has happened," write Woods Bros. Company, Lincoln, Neb., in reference to the draft horse situation. "The letters that are coming in response to our advertising announcements clearly indicate that farm horses are scarce and high priced. During the winter, which has been a severe one, the buyers of farm horses have waited. Feed was too high to increase the stock during the winter except where absolutely necessary. Now that there are signs of spring they have begun their search for the needed horse power, and the supply which they had hoped to find has been greatly diminished and is now very far below their former expectations. It is needless to suggest that the agricultural activities this year and the years that will follow the winning of the war will require an enormous increase in horse power. Indications are that farm labor will be scarce and it will be necessary to have the maximum horse power to overcome this condition. We thought we could foresee this condition and we began buying yearlings and 2-year-old draft stallions, the Iowa, Illinois and Wisconsin breeding districts. We rejected many that measured up to the former acceptable standards because we recognized that the demand would be for a much better and heavier draft than formerly. Our correspondence indicates that we were correct in sizing up the situation. We have grown these colts out and we have today 75 stallions from 2-year-olds up that we have been assured are the most remarkable collection that has ever been assembled in one establishment in the Middle Western country. We do know that they are big, they are clean, and are well-bred and wherever we have exhibited them we have won the lion's share of the prizes. We invite inspection."—Advertisement.

S. E. Kan. and Missouri

BY C. H. HAY.

The Poland China sale of Homer Souders at Chetopa, Kan., held February 26 was very satisfactory. A good local crowd was present and enough from neighboring counties to make fair competition. It was a good first sale and like the majority of "first" sales, most all the glits were the same breeding. This condition cut the average to a certain extent, but when you consider he sold 48 head and every one a glit (not a tried sow in the bunch) at an average of \$81.36, it was a very good sale. Mr. Souders is an artist at developing and he will have another good bunch to sell next year.—Advertisement.

Dean's Polands Average \$145.

One of the very best lots of Poland Chinas that has been offered to the public of Missouri was that made by Clarence Dean of Weston at Dearborn, Mo., February 28. The offering was first class individually, they were in the very best condition, most of them showing heavy with pig and the blood lines represented were the very best. Forest Rose of Hemple, Mo., topped the sale at \$325 for Miss Big Bone by Long Big Bone, dam, Lady Model by Big Red. She was bred to Dean's Big Timm. The average on the 42 head was \$145. Col. P. M. Gross did the selling. Mr. Dean will hold his next sale February 28, 1917.—Advertisement.

Two Days Cattle Sale at Coffeyville, Kan.

The Southeastern Kansas Shorthorn and Hereford breeders will hold a two days sale of registered cattle at Coffeyville, Kansas, April 5 and 6. H. M. Hill, Lafontaine, Kan., will manage the Shorthorn sale and Samuel Drybread, Elk City, Kansas, the Hereford sale. Among the Shorthorn contributors are: O. O. Massa, Edna, Kan.; Wesley Jewel, Humboldt, Kan.; H. M. Hill, Lafontaine, Kan.; H. J. Gaddes, McCune, Kan.; I. L. Swiney, Independence, Kan.; V. L. Polson, Fredonia, Kan.; I. C. Thorn & Son, Altoona, Kan.; Dave Romine, Oswego, Kan. The Hereford consignors include such breeders as Jno. Keith, Coffeyville, Kan.; Sam'l Drybread, Elk City, Kan.; Brown Bros., Fall River, Kan.; E. S. Rea, Coffeyville, Kan., and Commercial Land & Cattle Co., Muskogee, Okla.—Advertisement.

Coburn's Holstein Calves.

All dairy products are high and will continue to be so is the universal belief. This is not entirely due to the war, but to supply and demand as well. The population of the United States is increasing much faster than the production of dairy products. This alone will keep prices where good profits will be made. The war must also be considered. All Europe will be depleted of dairy stock, as dairy cattle as well as beef cattle have been slaughtered to feed their vast armies. The Edgewood Farm, White-water, Wis., O. Coburn, Mgr., will dispose of about 100 Holstein calves this spring, both sexes, all from heavy producing cows running 7-8ths to 31-32nds pure, at \$25 each, crated singly, and can be safely and cheaply shipped long distances. They shipped the past month these calves at 4 to 6 weeks of age to Alabama, Colorado, Louisiana, North Carolina, Texas and Utah. They are now booking orders and have some ready for immediate shipments, and it will pay you to write them.—Advertisement.

A Report on Livestock

An excellent directory of the purebred livestock breeders of Kansas has just been issued by the Kansas state board of agriculture. It gives the names and addresses of all breeders of purebred stock, together with much other valuable information. This report is known as the Kansas Livestock Breeders' Directory, and it consists of 194 pages. It can be obtained free on application to J. C. Mohler, the secretary of the board, state house, Topeka.

SHORTHORN CATTLE.

Salt Creek Valley Shorthorn Cattle

For Sale—Our herd bull Red Laddie 253594, by Capt. Archer 265741. Pure Scotch and a great bull. Guaranteed a breeder. Also ten Scotch top bulls from ten to twenty months old. All good ones. No cows or heifers for sale at present.

We also offer 25 bred Poland China glits, weighing from 260 to 275 pounds.

E. A. Cory & Sons, Talmo, Kan.
(Pioneer Republic County Herd)

New Buttergask Farm SHORTHORNS

Pure Scotch and Scotch topped bulls 10 to 22 months old. Some choice bred cows for sale. Address

Meall Bros., Cawker City, Kan.

RED POLLED CATTLE.

FOSTER'S RED POLLS Write for prices on breeding stock.
C. E. FOSTER, R. R. 4, Eldorado, Kansas.

Pleasant View Stock Farm
Registered Red Polled cattle. For sale: a few choice young bulls, cows and heifers. HALLORON & BARNHILL, OTTAWA, KANSAS.

Morrison's Red Polls Nine bulls from 8 to 12 months old, by Cremo 2nd. Cows and heifers.
CHAS. MORRISON & SON, Phillipsburg, Kan.

Sunnyside Red Polls

I have young bulls with quality that will please the up to date breeder. Come and see them or write for description.

T. G. McKINLEY, JUNCTION CITY, KAN.

Red Polled Bulls

Two sons of Bob Evans 25387, one of the best sires of the state. They are in good condition, 10 months old, and are ready for service. Picked for quick sale. No females to offer at present.

L. W. POULTON, MEDORA, KANSAS.

RED POLLS

2 bulls, 18 months old, 1 herd bull, coming 4 years old, weighing over 2 tons.

PLEASANT VIEW STOCK FARM,
Albert Haag, Route 5, Holton, Kansas.

POLLED DURHAM CATTLE.

DOUBLE POLLED DURHAM BULLS for sale. Forest Standard Polled Durham Bulls, 8 1/2 years old, at the head of the herd. C. M. HOWARD, HAMMOND, KANSAS

FOR SALE Young registered Polled Durham and Shorthorn breeding cattle.
J. H. HELD, STERLING, COLORADO.

POLLED DURHAM BULLS

From 10 to 36 months, including 2 extra hard prospects.

S. R. BLACKWELDER & SONS, Isabel, Pratt Co., Kan.

For Sale—Good Polled Durham Bulls

at \$100 to \$150, good grades at \$75. Full blood heifers at \$100 to \$125. Also good young coming year old Jack, and an extra good one coming three at reasonable price. D. C. Baumgartner, Halstead, Kan.

J. C. BANBURY & SONS POLLED DURHAMS

(Hornless Shorthorns)



25 BULLS, \$100 TO \$500.

Roan Orange and Sultan's Price in Service. We give tuberculin test, crate and deliver at Pratt or Sawyer; furnish certificate and transfer; meet trains and return free. Phone 1002.

J. C. BANBURY & SONS, PRATT, KANSAS

SHORTHORNS AND POLLED DURHAMS

IN BIG FOUR DAY SALE

So. Omaha, Neb., Mar. 26, 27, 28, 29

150 Shorthorns, 80 bulls and 70 cows and heifers sell on the first two days.

100 Double Standard Polled Durhams, 40 bulls, and 60 females sell on the last two days.

50 calves go free with dams in the four days. Car lot buyers will find this event attractive.

Write for illustrated catalog of the sale that you are interested in to

H. C. McKelvie, Sale Mgr.
Lincoln, Neb.

HEREFORD CATTLE.

Spring Creek Herefords

Smith Center, Kansas

Old Established Herd SPECIAL BULL OFFER:

Two big coming two year old bulls. Six younger bulls that will do for light service this season. Prices and descriptions by return mail.

S. D. Seever, Smith Center, Kansas

LIVESTOCK AUCTIONEERS.

John D. Snyder, Hutchinson, Kan. LIVESTOCK AUCTIONEER
Experienced all breeds. Wire, my expense.

Jas. T. McCulloch, Clay Center, Kan.
My reputation is built upon the service you receive. Write, please or call.

GUERNSEY CATTLE.

2 High Grade Guernsey Cows
four years old, one just fresh, one springing. One aged registered cow, one registered male calf, one high grade male calf five months old. Two yearling heifers, high grade. Two heifer calves. These are all extra good stock. Write DR. E. G. L. HARBOUR, Lawrence, Kansas, Box 113.

JERSEY CATTLE.

Say, Jersey Breeders
I offer five young bulls, ready for service for sale at attractive prices. Write for breeding and prices.

J. A. CRAIK, OKETO, KANSAS.

HOLSTEIN CATTLE.

Holstein Calves from high grade stock either sex. Priorities. Blankinship & Blankinship, Rosalia, Kansas.

Choice Holstein Calves
12 Heifers 15-16ths pure, 5 to 6 weeks old, heavily marked, \$20 each. Safe delivery and satisfaction guaranteed. FERNWOOD FARMS, Wauwatosa, Wis.

OAK HILL FARM'S HOLSTEIN CATTLE
yearling bred heifers and bull calves, mostly out of A.R.O. Perfect satisfaction guaranteed. BEN SCHNEIDER, Northland, Kan.

HOMER DAIRY FARM, DENISON, KAN.
Some young bulls for sale. Also females. Member of Assn. of Kansas J. M. Chestnut & Sons, Denison, Kan.

Segrist & Stephenson, Holton, Kansas
Breeders exclusively of purebred, prize-winning, record-breaking Holsteins. Correspondence solicited. Address as above.

HOLSTEIN CALVES, 25 heifers and 4 bulls, 15-16 months old, 5 weeks old; from heavy milkers, \$25 each. Crated for shipment anywhere. Send order or write EDGEWOOD FARMS, WHITEWATER, WIS.

Registered and High Grade Holsteins
Practically pure bred heifer calves, six weeks old, crated and delivered to your station, \$25 each. Safe arrival and satisfaction guaranteed. Write us your wants. CLOVER VALLEY HOLSTEIN FARM, Whitewater, Wis.

Braeburn Holsteins
Lots of bull calves, a week old to a year. Outcome of 25 years' improvement.

H. E. COWLES, 608 Kan. Ave., Topeka, Kan.

REGISTERED HOLSTEINS. "Tredico is the herd with wonderful constitutions." If the bull you bought had a weak constitution from a forced record or a disease, visit Tredico at once.

GEO. C. TREDICK, KINGMAN, KANSAS.

Registered Holsteins
For Sale: Hamilton Puffy's Lad, born June 14, 1917, a show bull; Hamilton Hambo's Duke, born Aug. 23, 1917. Also some younger bull calves. Will send pictures. S. E. ROSS, R. 4, TOLA, KANSAS.

REGISTERED HOLSTEIN BULLS
From A.R.O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM
R. F. D. 2, TOPEKA, KANSAS

Our 3 Year Old Registered Holstein Herd Bull
for sale, and his sons, ready for service and young. They are dandies and priced to sell. G. H. ROSS & SONS, INDEPENDENCE, KANSAS, R. F. D. 1.

The Cedarlane Holstein Herd
For Sale: Our 4 yr. old grandson of Pontiac Korndyke, guaranteed free from Tuberculosis, contagious diseases and a sure breeder. Dam's record 27.79, sire's dam 31.01 pounds. Must sell to avoid inbreeding. Price right. Also special prices on bull calves from above bull. Still have a few good cows for sale.

T. M. Ewing, Independence, Kansas

STUBBS FARM
Offers:

Sir Clara Gem De Kol, born Oct. 9, 1916, about half black, half white, perfect individual, straight back, broad level rump, wonderful barrel and a world of style and quality.

His dam, sire, 30 sisters and all four grand parents are in A. R. O. Price \$175 crated f. o. b. Mulvane. Guaranteed free from tuberculosis and to be a breeder. A bargain for quick sale. Address

Stubbs Farm, Mulvane, Kansas

For Sale: Our 4 yr. old grandson of Pontiac Korndyke, guaranteed free from Tuberculosis, contagious diseases and a sure breeder. Dam's record 27.79, sire's dam 31.01 pounds. Must sell to avoid inbreeding. Price right. Also special prices on bull calves from above bull. Still have a few good cows for sale.

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Stubbs Farm, Mulvane, Kansas

1887. J. M. Lee brought the first Holsteins to Kansas.
1917. Lee Bros. and Cook have the largest herd of Holsteins in the West.

Blue Ribbon Holsteins

3 bred heifers and a registered bull \$325.

450—Holsteins—Cows, Heifers and Bulls—450

We sell dealers in Kansas, Oklahoma and Texas. Why not sell direct to you? 50 Fresh Cows, 100 Springing Cows, 100 Springing Heifers, 100 Open Heifers, 40 Pure Bred Bulls, all ages, many with A. R. O. breeding. Bring your dairy expert if you wish. Calves well marked, high grade, either Heifers or Bulls, from 1 to 6 weeks old. Price \$25.00 delivered to any express office in Kansas.

We invite you to our farms. Come to the fountain. We lead, others follow. Herd tuberculosis tested and every animal sold under a positive guarantee.

50—REGISTERED COWS AND HEIFERS—50

Some fresh, others fresh soon. Many with A. R. O. records. All ages from 6 weeks to 5 years old. Remember we have one of the Best Bulls in the World, Fairmont Johanna Pietertje 78903. A calf from him is a starter on the road to prosperity. We want to reduce our herd to 250 head on account of room and will make very attractive price on either pure bred or grade stuff for 30 days only.

LEE BROS. & COOK, Harveyville, Wabaunsee County, Kansas
Wire, Phone, or write when you are coming.

Special Holstein Bargains For 60 Days

Having purchased the Holsteins of the Healy estate and having more cattle than I can handle I will make close prices for the next 60 days.

70 extra choice, high grade, heavy springing heifers to freshen in January and February.

50 choice, high grade heifers, (long yearlings), bred to my herd bull whose sister holds the world's record for milk production for a two-year-old.

Choice, registered heifers sired by a 40-pound bull and bred to a 40-pound bull. A few young bulls with A. R. O. backing for sale. Many of them old enough for service. Address

M. A. Anderson, Hope, Dickinson Co., Kan.

Note: Hope is on the Main line Missouri Pacific, Strong City branch of the Santa Fe and only 8 miles from Herington on the main line of the Rock Island.

M. E. Peck, Sr. M. E. PECK & SON M. E. Peck, Jr.
At the farm Phone 1819 F 2 SALINA, KANSAS In town Phone 1989 W

Oakwood Dairy Farm Holsteins—Special Feb. Prices

On 50 cows to freshen between now and March first. These cows, many of them, have given milk all summer, from 40 to 50 pounds per day. They are right every way.

60 two-year-old heifers to freshen between now and April first. We mean just what this says. If you want Holstein cows and heifers of the right kind write us at once.

We like to know where you saw our advertisement. Address

M. E. Peck & Son, Salina, Kan.

The Maplewood Consignment of Holsteins at The Breeders' sale at Topeka on March 26th will include Four Beautiful Daughters of that Greatest of Kansas Bulls, Canary Butter Boy King, one granddaughter of King of the Pontiacs from a 20 pound dam—a handsome lot of heifers. Come to the sale prepared to buy the lot for a foundation herd and stay until you get them.

Four of them bred to the Junior Herd sire of Maplewood, Duke Johanna Beets, who has a twenty-five pound dam and who has two thirty pound daughters, one of which is a full sister to our bull.

What will heifers from Canary Butter Boy King bred to a bull-like Duke Johanna Beets be worth? Your bids will be the answer.

MOTT & SEABORN, HERINGTON, KANSAS

50 Registered Holsteins At Auction, Tuesday, March 19

Included in the sale are 30 cows and heifers of milking age, 10 yearling heifers, 7 open heifers and heifer calves, 3 yearling bulls.

All females to be sold are bred by Sir Johanna De Kol 18th, 64143 who weighs 2500 pounds. He has 6 producing sons and 11 A. R. O. daughters.

Cedar Lawn Wit.....3 1/2 yrs.....28.63

Johanna Eliner Rue.....3 1/2 yrs.....27.15

Netherland Johanna De Kol 5 1/2 yrs.....24.93

210 is a half brother to the \$7,000.00 cow, Johanna De Kol Van Beers, 40.07 pounds, whose two sons sold for \$45,000.00. Here is an opportunity to buy cattle that are bred right and individually right.

STANDARD DAIRY CO, Walnut Grove, Wichita, Kansas

Sale starts at 1 P. M. sharp. Auctioneers, Newcom and Temple, Wichita, Kansas.

Mark the date, March 19th. One mile north of city.

65 Head—Geo. Briggs & Son—65 Head At farm near Clay Center and Fairfield, Neb., March 18

60 bred sows by Illustrator 2nd, Joe Orion 5th, Pal's Giant and Pal's Chief. Bred to Great Wonder 2nd, Joe Orion 5th, Pal's Giant, Pal's Chief and Illustrator 2nd.

5 fall boars by a son of Orion Cherry King.

Not a sow in the sale that will not make big money for the man who buys her.

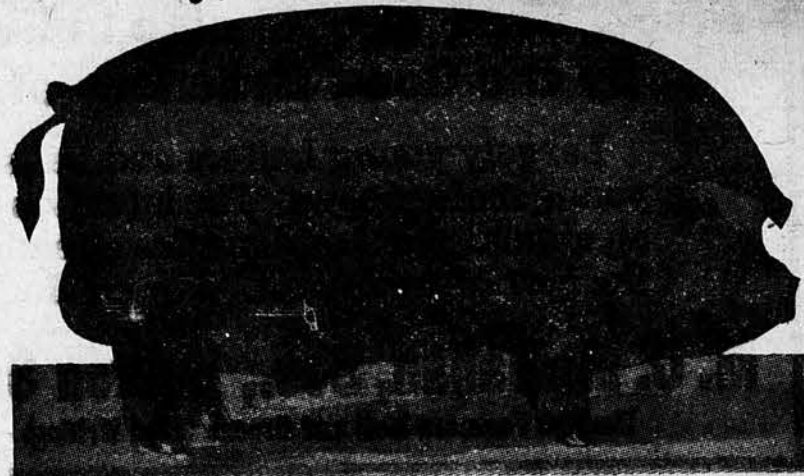
Write today for catalog and plan to attend this sale. Address

Geo. Briggs & Son, Clay Center, Nebraska

Steele Offers Another Great Bunch of Duroc-Jersey Bred Sows

Sale Pavilion

Falls City, Neb., Tuesday, Mar. 19th



40—Head, just as well bred and the same kind of individuals that we always sell 40

Some fall gilts. Remainder choice spring gilts.

Attractions—6 head sired by National Chief bred to Disturber of Idlewild.

As much choice new Eastern breeding as has gone into any sale this winter. Many sired by our great breeding boar SENSATION WONDER 2nd. A big per cent bred to CREATOR, one of the most promising sires to be found in the west. The catalog tells it all. Write now for it and mention this paper.

Robt. E. Steele, Falls City, Nebraska

Auct. Col. W. M. Putman, Jesse R. Johnson will represent this paper. Send him all bids in my care.

Poland China Sows High Grade Shorthorn Cows

Public Sale, Glen Elder, Kansas

Sale at the J. M. Kepple farm joining town

Thursday, March 14th, 1918

19 choice Poland China bred sows, 11 that can be recorded and the rest not eligible to registry but otherwise equally as choice. Everything bred to farrow this spring. Four young September boars eligible to registry.

15 High grade Shorthorn cows that are fresh now. One coming 2-year-old filly, two coming year-old mare colts, one 3-year-old gelding, one 2-year-old mare mule. Catalogs ready to mail. Address

D. A. Slate, Glen Elder, Kansas

Will Myers, Auctioneer.

We Are Offering Bargains in Yearling Bulls For the Next Thirty Days

Can Also Price You Several Cows and Heifers Reasonable

HIGGINBOTHAM BROTHERS, ROSSVILLE, KANSAS

—WAIT FOR DATE—

and more information on our sale of pure bred and high grade Holsteins, to be held some time in April.

Sale to include all ages, from calves to mature animals in females. Also some good young bulls.

Sale to be held on Grand View Farm, the new home of Eshelman's Holsteins.

A. L. Eshelman, Abilene, Kansas

Interstate Shorthorn Breeders Sale

Sale Pavilion, Hebron, Neb., Saturday, March 16, 1918

40 HEAD

**Nicely Bred and Choice Individuals Consigned
by the Good Breeders of This Locality**

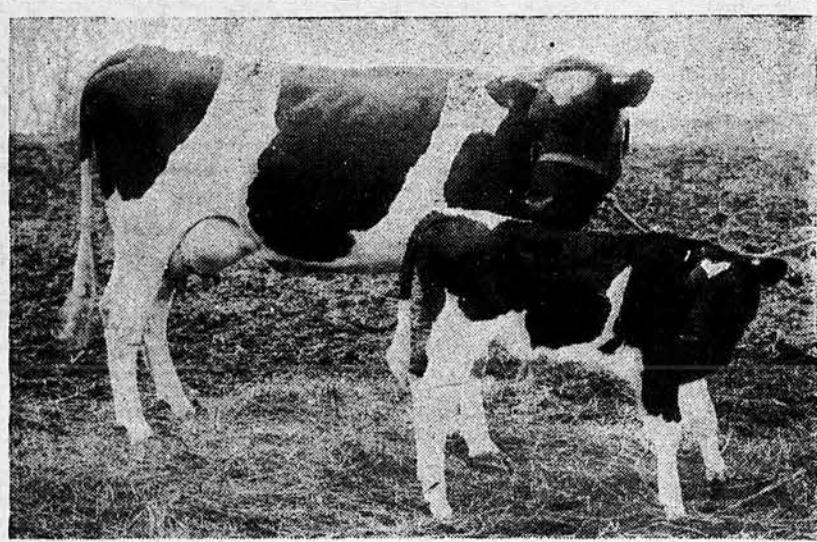
Largely young heifers and bulls with a few choice young mature cows. The intention is to make this sale an annual event and parties attending will be assured the best of treatment. For catalog address



M. C. McMahan, Sec., Hebron Sales Pavilion Company, Hebron, Neb.

Mention Farmers Mail and Breeze When Writing. Col. H. S. Duncan, Auctioneer. Jesse R. Johnson, Fieldman

Grand Dispersion Sale of Two Pure Bred Holstein-Friesian Herds



Two foundation herds, closely culled and carefully bought and reserved. A complete dispersion of both herds at

Kensington, Kan., Wednesday, March 20th

45 Head in the sale

All pure bred. 31 are registered and 14 are purebreds with which no papers can be furnished.

The 31 registered cattle consist of 7 cows, three to nine years old, all giving milk but one and she will be fresh in March. Seven two year old heifers, just fresh or to freshen soon. Five yearling heifers to be fresh in September and October. 12 calves, four bulls and eight heifers. 16 of this number are by a grandson of **King of the Pontiacs**. The rest are closely related to **De Kol 2nd's Butter Boy 3rd** and **Sarcastic Lad**. The pure bred cattle not registered are of the same breeding. Catalog ready to mail. Address,

E. J. Dixon, Agra, Kan., or C. A. Smedley, Kensington, Kan.

W. H. Mott, Herlington, Kan., Sales Mgr.

Auctioneers: Jas. T. McCulloch, Clay Center, Kan.; W. Mendenhall, Oronoque, Kan.; L. C. Hopkins, Phillipsburg, Kan.; J. W. Johnson, Fieldman.



Roan's Clover Leaf Valley Farm Sale

20 Mammoth Jacks

15 Jennets

La Plata, Mo., Friday, March 29

MO. BOB, a 4-year-old by Mo. King, sire grand champion mules Missouri State Fair 1914-15-16, heads a great string of serviceable age jacks. All good colors, heavy bone, good bodies and ready for service. All carry Roan's guarantee. Col. Gross, auctioneer. Send for illustrated catalog. Address, mentioning this paper.

G. C. ROAN, ETHEL, MISSOURI

Big Missouri Jack Sale

Savannah, Missouri

March 14th, 1918

24 Big Registered Black Jacks, 24

All serviceable age excepting one yearling. Will sell 4 Percheron mares and one Percheron stallion. **HERD ESTABLISHED 1884**. Write for big illustrated catalog.

G. M. SCOTT, REA, MO.

Col. P. M. Gross, Auctioneer. C. H. Hay, Fieldman. Sale held in Savannah. Inter-urban cars to St. Joseph.



**The Famous
Bluestem Duroc-Jerseys**

*Hogs of all ages and
both sexes.*

Everything shipped on approval.



Registered Shorthorn Cattle. For Sale: 12 Bulls from 10 to 12 months old. Scotch tops. Reds. Popular blood lines. Big richly bred dams. Correspondence promptly answered. Address **WARREN WATTS, Clay Center, Kansas**

**Cedarlawn
Shorthorns**

I have nine bulls from 11 to 14 months old for sale. They are Scotch topped, reds and roans. Write or phone when to look for you and we will meet you at the train. **S. B. Amcoats, Clay Center, Kan.**

Kansas Breeders' Consignment Sale

Twenty of the leading Kansas breeders have consigned for sale in the big cattle pavilion of the Kansas State Fair association at Topeka, Kan., Tuesday, March 26th, following the annual meeting and big banquet of the Holstein-Friesian association the night before.

120 HEAD of REGISTERED HOLSTEIN-FRIESIAN CATTLE, MAR. 26

The sale management has had much difficulty in persuading the breeders to consign the class of cattle that will be offered in this sale, as the cattle are the kind they want to keep, but in order to make this the greatest Holstein event and sale ever held in Kansas, they have made the sacrifice and are offering you the opportunity to purchase the cream of their herds. Every animal tuberculin tested and without a blemish, and positively guaranteed by the consignors, all of whom are members of the Kansas Holstein-Friesian Association and known by the sales management to be men of integrity. Resolve now to attend this sale of all Kansas sales where you may buy a foundation herd and procure cattle that will make you proud every day that you own them, and that will declare a dividend, not annually, or semi-annually, but 365 days in the year.

CONSIGNORS

T. M. Ewing, Independence, Kan. Mott & Senborn, Herington, Kan. David Coleman & Son, Denison, Kan. Schultz & Robinson, Independence, Kan.
L. F. Cory & Son, Belleville, Kan. Ira F. Collins, Sabetha, Kan. Segrist & Stephenson, Holton, Kan. Lee Bros. and Cook, Harveyville, Kan.
J. P. Mast, Scranton, Kan. W. R. Stubbs, Lawrence, Kan. J. T. Axtell, Newton, Kan. A. S. Neale, Manhattan, Kan.
Ben Schneider, Nortonville, Kan. Chestnut & Son, Denison, Kan. R. R. Gomey, Mulvane, Kan. D. M. Cahill, Coffeyville, Kan.
F. J. Searle, Oskaloosa, Kan. H. D. Burger, Seneca, Kan. Harry Mollhagen, Bushton, Kan. Geo. C. Fredick, Kingman, Kan.

Fill in, Cut Out and Mail Coupon Today Sure

W. H. MOTT, Sec'y Holstein-Friesian Ass'n, Herington, Kan.

Please send me free catalog of the Kansas Breeders' Consignment Sale at Topeka, Kan., March 26, as advertised in Farmers Mail and Breeze.

Name.....

Address.....

Be Sure to Mail
Both Coupons
And Get the
Two Catalogs

The annual meeting of the Holstein-Friesian Association of Kansas will be held in the rooms of the Chamber of Commerce Monday, March 25th. All visiting Holstein breeders are invited to attend a banquet to be given by the Chamber of Commerce Monday evening. If you are a Holstein breeder and not a member of the association, apply today for membership to W. H. Mott, Secretary, Herington, Kan.

Arrangements have been made at the Throop Hotel at reasonable rates and this will be the headquarters during the Association meeting and sale. This two days' sale affords a great chance to buy pure bred Holstein cattle. Make your plans now to attend.

Be Sure to Mail
Both Coupons
And Get the
Two Catalogs

Also Big Dispersion Sale of F. J. Searle's Famous Sunflower Herd of Holsteins 75 Head of fashionably bred cows and heifers—also some choice young bulls, Mar. 27

Mr. Searle finds himself without a home, having sold his farm on February 16, and must give possession March 1st, 1918. This means the complete dispersion of his herd of registered Holsteins consisting of 75 head of cows and heifers of the most fashionable breeding, also some choice young bulls, some of them ready for service. The cattle are of superb individuality and will be dispersed on March 27th, the day following the Kansas Breeders' sale, at the same place. These cattle will be at the Fair Grounds Barn several days prior to the sale, and can be seen there.

Fill in, Cut Out and Mail Coupon Today Sure

F. J. SEARLE, Oskaloosa, Kan.

Please send me free catalog of your dispersion sale of Holstein cattle at Topeka, Kan., March 27, as advertised in Farmers Mail and Breeze.

Name.....

Address.....

AUCTIONEERS

B. V. Kelley, Syracuse, N. Y. J. T. McCulloch, Clay Center, Kan. C. M. Crews, Topeka, Kan.
J. E. Mack, Fort Atkinson, Wis. Boyd Newcom, Wichita, Kan. Fieldman: J. W. Johnson.

← Topeka, Kansas In Big Sale Pavilion At State Fair Grounds March 26-27

80 Head Dispersal 80 Head of the Sunflower Herd Holsteins

F. J. Searle, Prop., Oskaloosa, Kansas

Sale to be held at Fair Grounds Cattle Pavilion
Topeka, Kansas, Wednesday, March 27th

My farm has been sold and immediate possession to be given. Included in this sale will be found:

12 daughters of Model Segis Butter Boy 115602, a grandson of King Segis and from the three times thirty-pound cow, Annie DeKol Butter Girl. These heifers are a mighty fine bunch and have calves by side by the great young sire, King Pontiac Concordia Konigen 130856, whose sire, King Pontiac Konigen 75348, recently sold for \$10,000, and whose daughter, Lady Netherland Pontiac, recently has broken the world's records as a junior 4-year-old with over 43 pounds butter in 7 days. King Pontiac Concordia Konigen has for dam the 31.46-pound cow, Nellie Concordia De Kol.

A. R. O. cows of splendid breeding and great individuals.
33 head now milking, heifers, heifer calves and a few choice young bulls.

WE HAVE ALWAYS USED GOOD HERD SIRES. Every animal in this dispersion will have been bred to either King Segis Pontiac Mala (a son of King Segis Pontiac from a 20-pound 2-year-old daughter of King of the Pontiacs, his weight 2,300 pounds) or Sunflower King Walker 134166, a splendid grandson of King Walker from a 25-pound cow of great quality, his weight 2,000 pounds at 4 years.

SUNFLOWER KING WALKER will be sold. Arrange to attend this sale and see the finest lot of cattle ever sold by Sunflower Herd, and our many customers know that we have sold some mighty good ones. Send for catalog to

F. J. Searle, Oskaloosa, Kansas

Auctioneers: Boyd Newcom, Wichita, Kan.; Jas. T. McCulloch, Clay Center, Kan.; C. M. Crews, Topeka, Kan.

Note: Remember that my sale follows the Kansas Breeders' Sale; also remember that we are consigning grand daughters of King of the Pontiacs, King Segis Pontiac, Pontiac Jewel Butter Boy and King Pontiac Champion to the Breeders' Sale. A consignment of choice cattle from the herd of W. H. Mott, Sec'y, Holstein-Friesian Association of Kansas, will be included in the Sunflower dispersion.

Finley's Big Jack Sale

Higginsville, Missouri

March
20th



20
Jacks
20

All of serviceable age, including a number of herd jacks such as Dr. LOGAN by Gen. Logan by Dr. Wood; an extra good 4-year-old by Dr. Long; Choice McChord by Dr. McChord; a good 4-year-old by Dr. Leo 2d; one extra good young jack by Choice McChord, and a lot of first-class mule jacks. Will also sell a good yearling by Dr. Nelson, the jack that sold in my last year's sale at \$1,200; one jack colt by Choice McChord and one by Dr. McChord 3d.

30 JENNETS BRED TO DR. WOOD 30

If you are looking for herd jacks or the jacks that sire those good mules you will find them in this sale. Write for my big catalog.

W. J. Finley, Higginsville, Mo.

C. H. Hay, Fieldman.

Guaranteed to Do Satisfactory Work on Your Farm

THE SANDUSKY TRACTOR

"THE LITTLE FELLOW WITH THE BIG PULL"

You realize the advantages in good tractor farming—the saving in labor, lower maintenance cost than horses or mules, more timely and better prepared seed beds, resulting in bigger and better crops.

These things are apparent to the farmer of today, and we believe that the only reason for delaying the purchase of a tractor is—"Will It Work Satisfactorily On My Farm?"

The intelligent man knows that a tractor can't do the impossible, regardless of claims. We have appreciated this for many years. Realizing our own responsibilities in selling a Sandusky Tractor, and standing back of every machine as we do, it has always been our policy to fully determine each prospect's local conditions and requirements before recommending the purchase of a Sandusky Tractor.

This enables us to know positively that "The Little Fellow With The Big Pull," either the 10-20 Model J or the 15-35 Model E, is satisfactorily and profitably adapted to your requirements, and consequently "Our recommendation is an equalized guarantee of satisfactory work on your farm."

TRY IT ON YOUR OWN WORK

Is substantiation of this policy and as a further safeguard to your interests, all Sandusky Tractors, whether sold direct or thru a Dealer's Sales Room and Service Station, are delivered subject to satisfactory demonstration. A specially trained serviceman will personally instruct you in its care and operation. If for any reason it is impossible to fulfill our guarantee on your work, the tractor is taken off your hands and the purchase price refunded.

GUARANTEED FREE SERVICE

Each Sandusky Tractor further carries a definite and specific guarantee of free service. This ensures you efficient help and advice whenever wanted and completes a policy which absolutely protects your interests from every conceivable angle.

Write today for a copy of "Power On The Farm," issue J-65 or E-65, or both. It covers all details of design, construction, ability, guarantees and policies. Fully outline your requirements—the number of acres under cultivation and to be cleared, character of soils, crops, per cent of grades encountered both on the farm and on the road, together with your belt power requirements. We will gladly analyze this carefully, making a personal inspection if necessary, and advise you without obligation. Investigate now so as to ensure delivery when you wish it.

The Dauch Mfg. Co, Sandusky, Ohio, U.S.A.

Wichita, Kansas, Branch:- 427 South Wichita St.

Principal Factory Branches, equipped with efficient service organizations, and carrying complete stock of parts:- Bloomington, Ill.; Lincoln, Neb.; Fargo, N. Dak.; Sioux Falls, S. Dak.; Lewistown, Mont.; Wichita, Kans.; Los Angeles, Calif.; Sacramento, Calif.; Dauch Mfg. Co. of Texas, Dallas, Texas; Export office, 42 Broadway, Rooms 1001-1010, New York City.

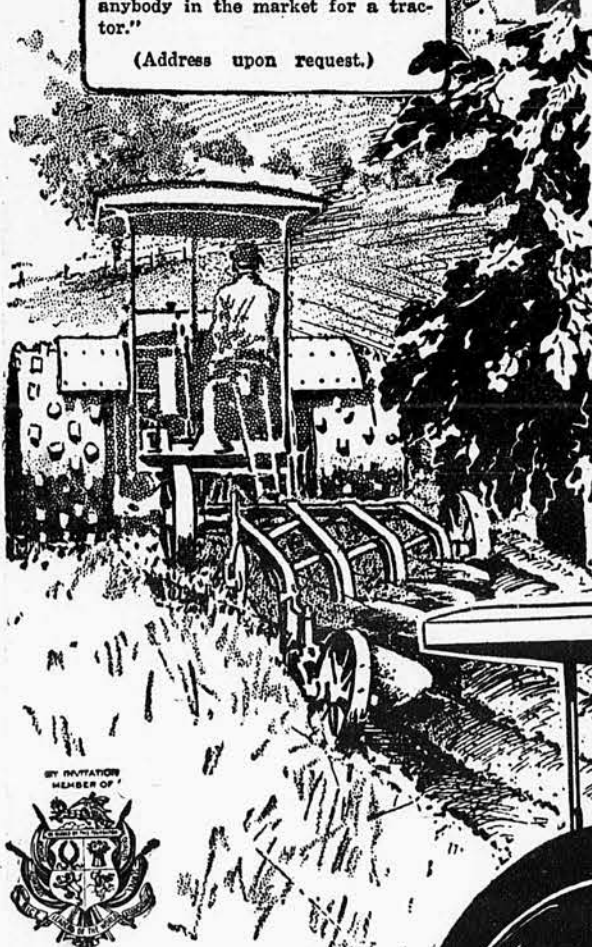
Emil Steege Says:

"This fall I threshed 20 days with 400 gallons of fuel and 50 gallons of oil. I pulled a 33-inch separator and kept 8 teams busy. I broke 80 acres last spring in 4 days, using 100 gallons of fuel and 10 gallons of oil, pulling 4 breaker bottoms, and I pull 6 bottoms when plowing.

"Plowed 300 acres last spring and threshed for 30 days in the fall of 1916. It is lots cheaper than horses or steam power. I sure like my Sandusky very much; also the treatment I have had from the company.

"The tractor will do a lot more than it is guaranteed to do, and it is very simple to operate. I do not hesitate to recommend it to anybody in the market for a tractor."

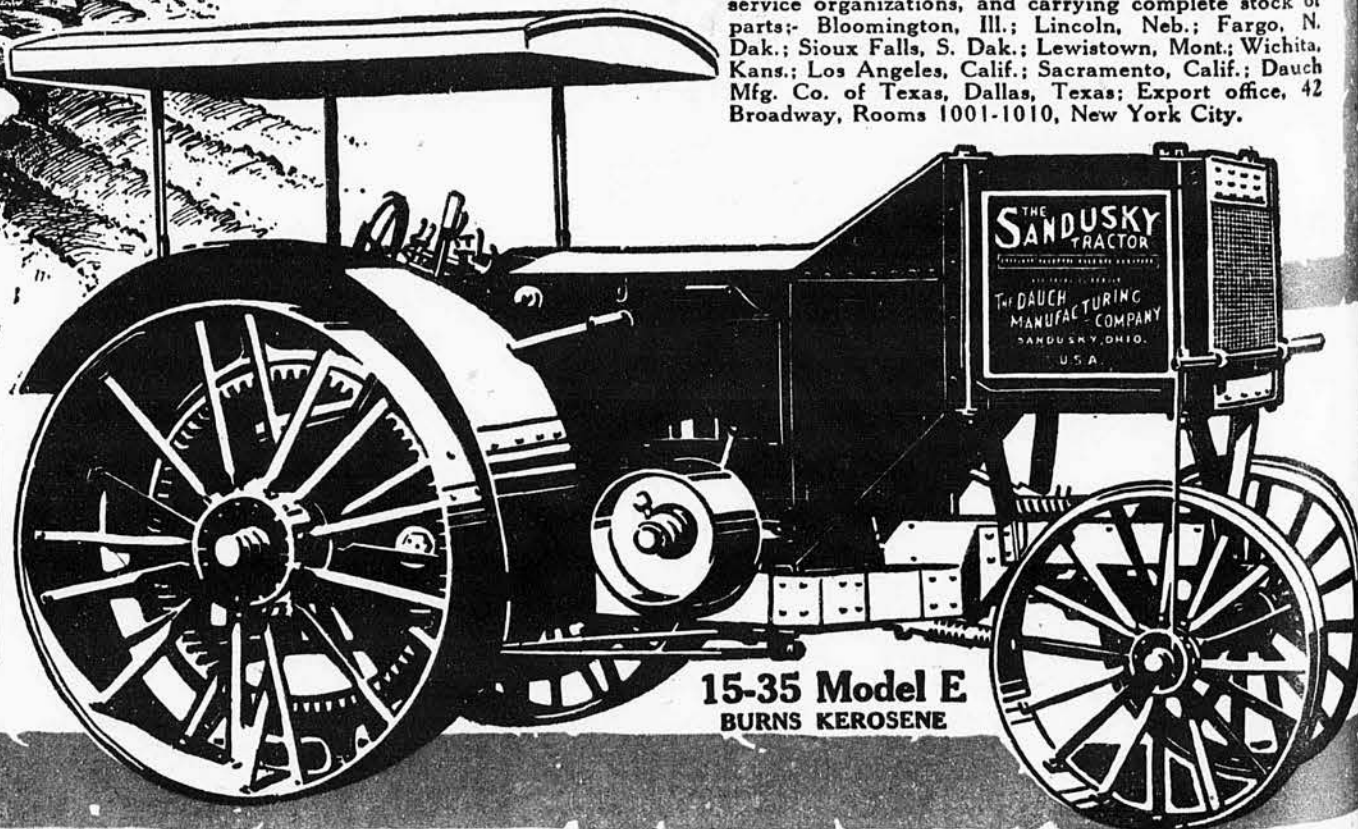
(Address upon request.)



15-35 Model-E

Sandusky 5 x 6 1/4 four cylinder motor.
Sandusky "Transmission Indestructible"—three speeds forward; reverse.
Sandusky spur gear drive throughout—no bevel gears—direct drive on low speed and belt work.
Wheel base, 100 inches; weight 8080 pounds.
Protection throughout against sand and grit.
Guaranteed Kerosene or Distillate Burner.

B-2-E



15-35 Model E
BURNS KEROSENE