

July 20, 1918



Vol. 48 No. 29

The FARMERS MAIL AND BREEZE

An illustration featuring a row of soldier silhouettes at the top, holding rifles. Below them, the text "Victory Thru Power Farming" is written in a stylized font. The central part of the illustration shows a large circular scene of a tractor demonstration with various tractors and people. In the foreground, a man in a hat is shown from the chest up, looking towards the right.

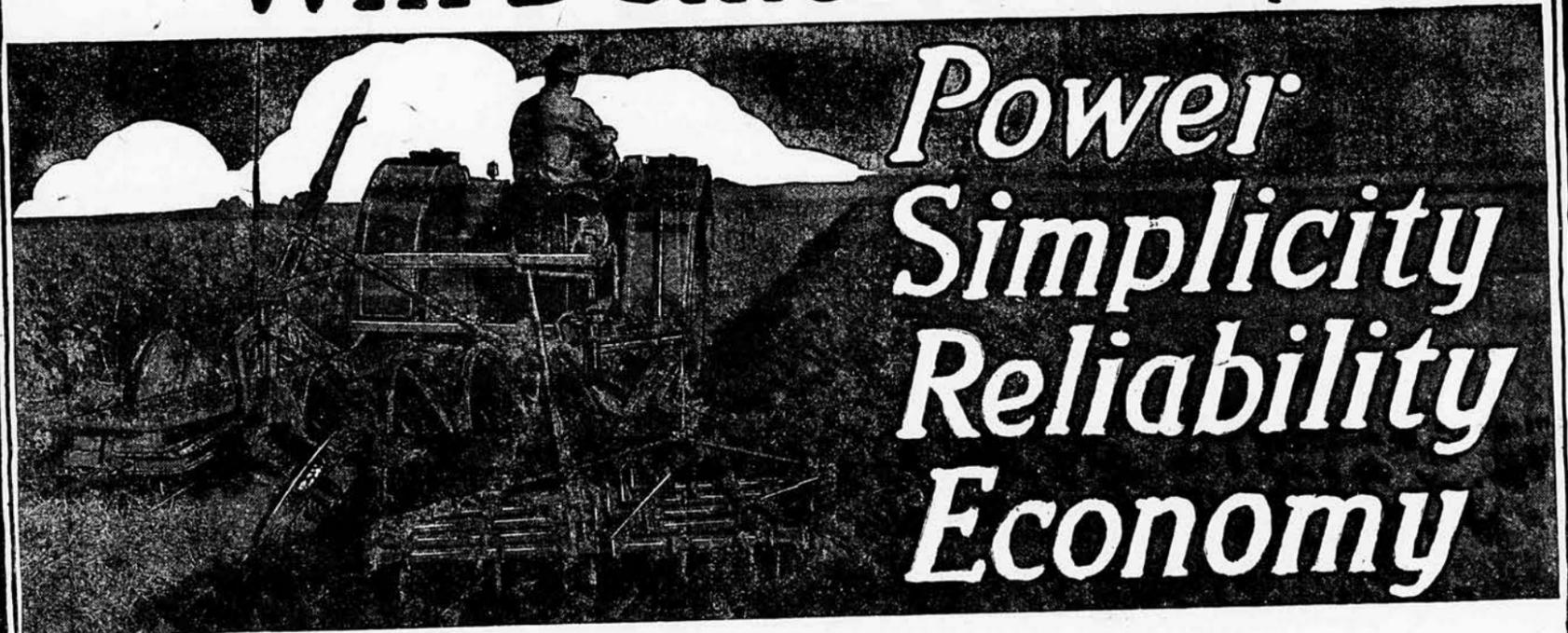
**Victory
Thru Power Farming**

**NATIONAL
TRACTOR DEMONSTRATION
Salina, Kansas, July 29-Aug 2, 1918**

WATERLOO-BOY

ORIGINAL KEROSENE TRACTOR

Will Demonstrate



*Power
Simplicity
Reliability
Economy*

Waterloo Boy pulling heavy engine 4-disc plow 7 inches deep, cutting 40 inches wide, in Texas black wax, and dragging 5-foot harrow—on farm of Col. Samuels, Dallas, Tex.

See It Work at National Tractor Demonstration Salina, Kansas, July 29-Aug. 3

You will recognize in the Waterloo Boy the tractor of power with the trouble left out—steady power for every farm job, draw bar or belt—reserve power for high pressure work in emergencies.

Note how it stands the jolts and jars of rough hand-

ling; how quickly and perfectly it responds to the driver's will; how easily it pulls three 14-inch bottom plows deep in difficult soil.

Note also how easily and quickly adjustments can be made, with gears and bearings so completely accessible.

Waterloo Boy—the Final Solution of Economical Power

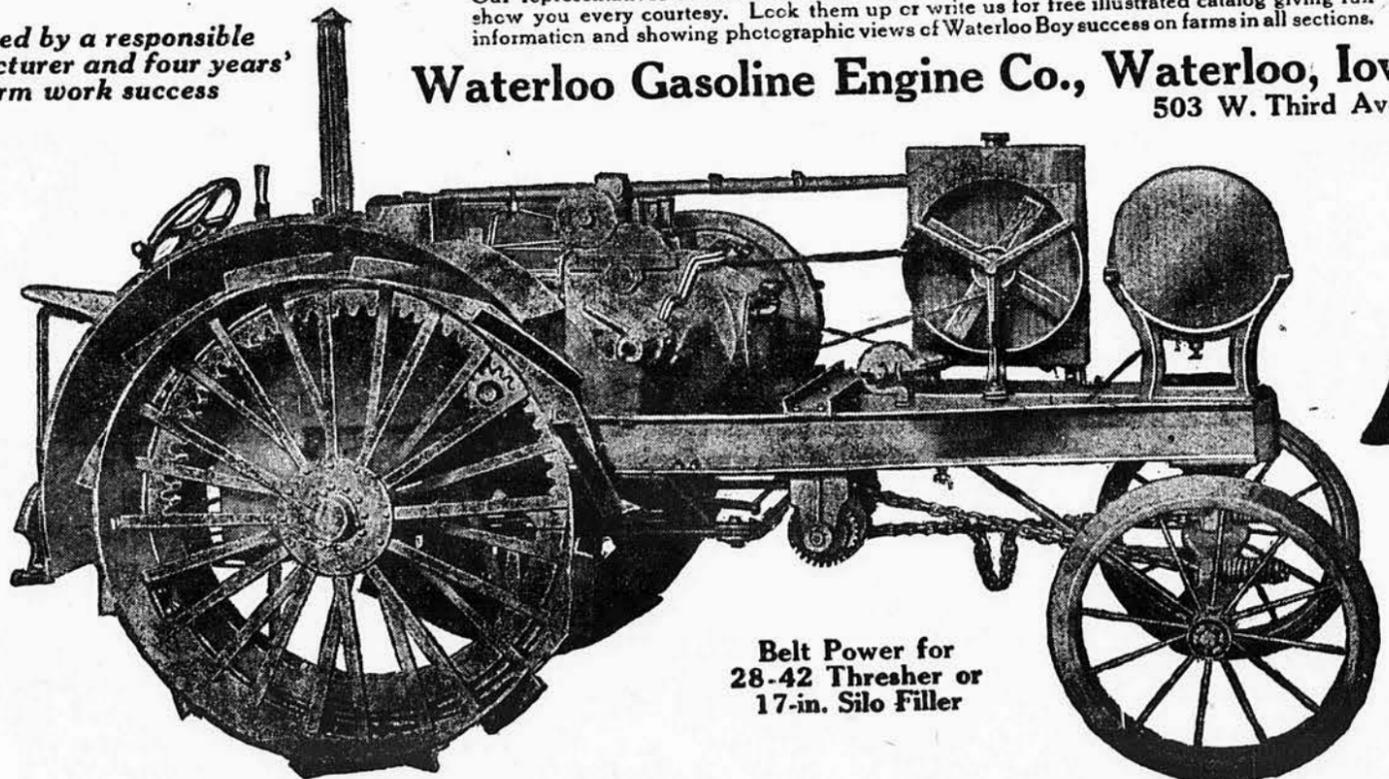
—works all day under its full 12 x 24 h. p. load on 18 gallons or less of kerosene. First tractor built in which cheap fuel was made a part of the original design and construction. Patented kerosene manifold burns all the fuel. Quality goes clear through

the Waterloo Boy. Hyatt roller bearings, steel cut case-hardened gears, dust proof construction, automatic lubrication, automobile type sliding gear transmission, reliable ignition. Centrifugal fly-ball governor permits instant change to any speed.

Our representatives at the Salina National Demonstration will be pleased to meet you and show you every courtesy. Look them up or write us for free illustrated catalog giving full information and showing photographic views of Waterloo Boy success on farms in all sections.

*Backed by a responsible
manufacturer and four years'
farm work success*

Waterloo Gasoline Engine Co., Waterloo, Iowa
503 W. Third Ave.



Belt Power for
28-42 Thresher or
17-in. Silo Filler

TRUE TALES ABOUT TRACTORS

THE NATIONAL DEMONSTRATION AT SALINA, MONDAY, WILL PROVIDE A CHANCE FOR FARMERS TO STUDY THE EQUIPMENT THESE MEN USED



SALINA'S National Tractor Show which will be held July 29 to August 3 will have the biggest and best exhibit of power farming machinery ever seen in the West, and it will be a valuable object lesson to farmers and all others who are desirous of growing larger and better crops. It will be a big step forward in the work for increased food production which is of such vital importance.

Power farming is becoming an urgent necessity with the growing shortage of labor and for this reason interest in power machinery is very marked throuthout the country. Especially has this been true in the West where the tractor has proved such a valuable ally in the campaign for increased food production. Reports received by the Capper Farm Papers from owners of tractors show conclusively that farmers everywhere are well pleased with the results obtained. A few of these reports are reproduced on this page.

Spark Plugs the Only Expense

Alex. Vogel, his brother Henry, and his father, Fred Vogel, all of Marion county, Kansas, have used a tractor during the last two years. The plowing more than 450 acres in this time, the only repair expense for the tractor has been for spark plugs. "We bought the tractor so that we could plow deep, thus obtaining better crops, and to save the horses," said Alex. Vogel this summer. "We get along with no fewer horses because of the tractor, but as it takes the heavy work of plowing off their shoulders they are in condition to do the other field work without loss of time."

Harvests 200 Acres in 6 Days

Working six days, and only so long as he could see by daylight, Harry Morrison of Saline county, Kansas, cut 200 acres of wheat with his tractor this summer. Last summer he plowed 160 acres of the wheat ground in 11 days with the same tractor. E. N. Ott, the present tenant on the land which Mr. Morrison sowed to wheat, helped him with the harvesting, riding the binder some of the time. Apparently Mr. Ott was well pleased with the work of the tractor, for when we visited him just following harvest he was waiting for his new tractor to come, with which he expects to put in 200 acres of wheat this summer.

More Power Machinery Used

BY K. J. T. EKBLAW

Despite the shortage of farm help, despite high costs of seed and equipment, despite the heavy and extraordinary demands upon the American farmer, he is going to come forward and show his true mettle by the tremendous crops that will be harvested this year. Of course, he has assistance—he has all the fine advice handed him by the good intentioned folk who do everything else but farm; he has some real substantial help from Providence in the shape of good season and timely rain, and he has a big willing partner in the tractor. You can "knock" the tractor as much as you please—it is getting there just the same. Last year there

were not to exceed 40,000 tractors rolling along over the fertile acres of American farms, and many were the dubious glances, and contemptuous remarks cast at the "iron horse." Many observers came away from public and private tractor demonstrations with a little bee buzzing in their bonnets, however, and now, according to the best figures available, there are over 100,000 of the machines in steady use. Tractor manufacturers are confidently expecting to have at least 200,000 in the field by the end of the summer. How's that for multiplication? Talk about guinea-pigs!

A number of factories where some of the more standardized machines are being made, are working night and day to meet the demand, which constantly is being augmented thru the efforts and influ-

drive he saw three tractors at work. It was after 10 o'clock, and the chug-chug of the exhaust could be heard for a long distance. One outfit looked especially good—a one-man outfit with a binder. It was going steadily along, cutting a full straight swath, and every so often there was a rattle of cogs and cams, and almost miraculously a fine heavy shock was set down behind the machine. Yes, they have them, and they seem to work.

Plows Alfalfa Sod

"The tractor has done well for me," said N. L. Olsen of Marion county, Kansas, this summer. He is now having his second season's experience with it. A job which particularly helped to raise the tractor in Mr. Olsen's estimation was the plowing of 25 acres of alfalfa sod. This usually is considered the most difficult kind of plowing that farmers of Kansas are required to do, so when the tractor does this work successfully they feel that it has merit. Mr. Olsen has a 10-25 horsepower tractor which pulled two 14-inch plow bottoms thru the alfalfa sod without trouble.

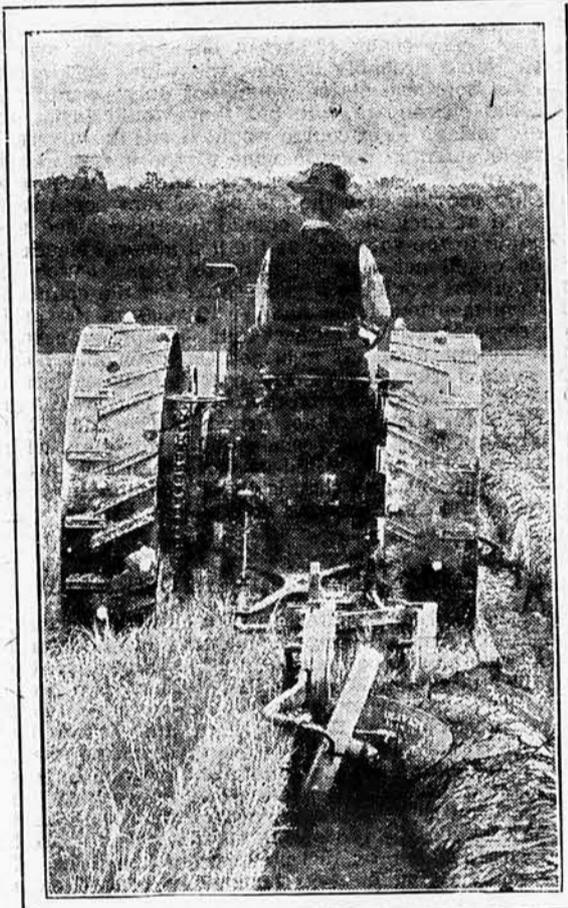
He did much threshing and shredding with the tractor last fall and winter, using kerosene despite the very cold weather. In addition to plowing and the belt work mentioned, Mr. Olsen has used the tractor for disking and listing. He listed 40 acres of corn with it last spring, using two listers behind the tractor.

Likes His Tractor

"I like my tractor very much," B. L. Amick of Marion county, Kansas, replied when asked if his machine was giving satisfaction. "I have just cut 16 acres of oats with it in 10 hours, using but one binder." Mr. Amick is having his first season's experience with a tractor, having purchased one of the 10-20 horsepower size last winter. He used it for cutting all of his grain this summer except the first round, and in the small fields where it was either unsafe or inconvenient to drive the tractor. In all, he used the tractor for harvesting about 60 acres of wheat and oats. His principal use of the tractor is for the preparation of the soil for the crops, but he will use it also for silo-filling and threshing.

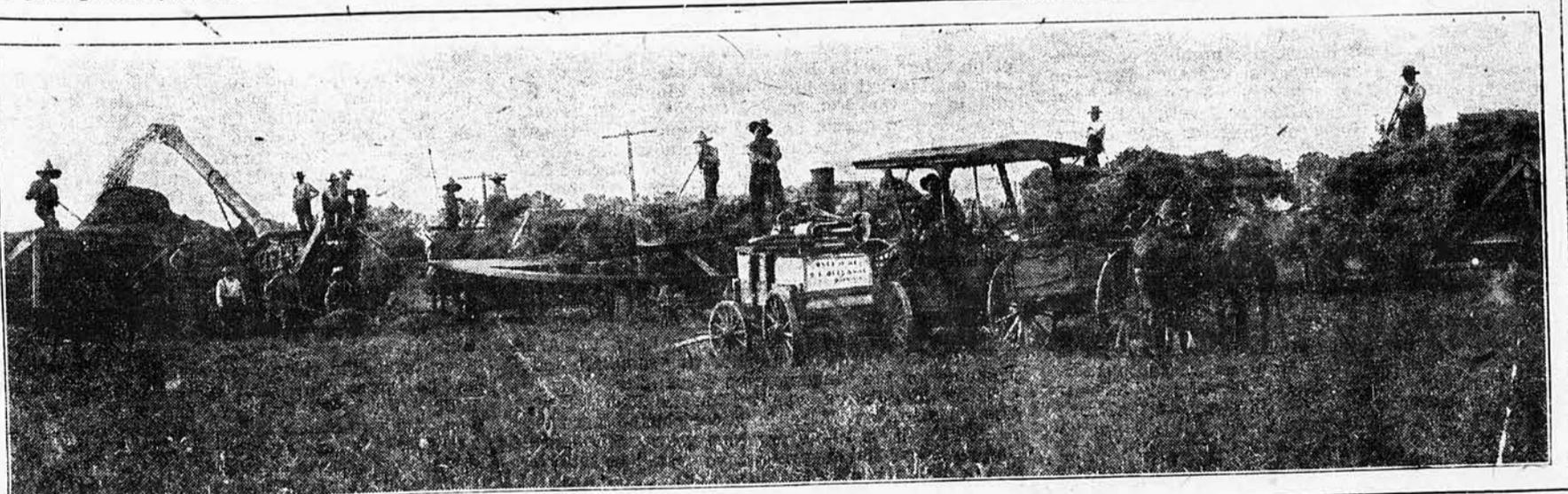
Facilitates Farm Work

Tho the tractor has not enabled D. H. Ehrlich, of Marion county, Kansas, to dispose of some of his horses, he finds that it greatly facilitates his farm work. On his farm of 280 acres he this year has 80 acres of small grain, 70 acres of alfalfa and 45 acres of corn. With mixed farming of this kind it is almost impossible to cut down the number of horses necessary, as his tractor cannot take the place of horses in either the hay or the cornfield. While the tractor was cutting the wheat and oats this summer, however, Mr. Ehrlich kept his teams in the corn, giving the corn cultivation at a time when it was badly needed, but at a time when many farmers neglect it entirely because of harvest requirements. Alfalfa is one of Mr. Ehrlich's principal crops. It is baled out of the windrow.



ences of the United States Department of Agriculture, the various state councils of defense, the agricultural colleges, banks, and other wide-awake and appreciative organizations. It is difficult to prophesy to what extent the tractor will be used next year, but from indications there will not be near enough to go around.

The writer was taking a moonlight drive to cool off so he could get a night's sleep one of these warm late June nights, and in the course of the



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 Livestock Editor.....T. W. Morse
 Farm Doings.....Harley Hatch
 Poultry.....G. D. McClaskey

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ADVERTISEMENTS GUARANTEED

WE GUARANTEE that every advertiser in this issue is reliable. Should any advertiser herein deal dishonestly with any subscriber, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us promptly, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in the Farmers Mail and Breeze."

Passing Comment—By T. A. McNeal

Somewhat Discouraged

A subscriber writes from Solomon, Kan., in a somewhat discouraged vein concerning the wheat outlook in Western Kansas. "Last year," he says, "I bought as good a quarter of land as there is in Gove county. I put 80 acres of it in wheat. I provided the seed and paid the other expenses amounting in all to approximately \$300. Recently, I took a trip out there to see how my investment had turned out. From Salina to McCracken the wheat looked good but farther West it seemed to get thinner and the reports I heard from the farmers were most discouraging. Some of the wheat was winter-killed and the hot dry winds and an electric storm in May destroyed some which prior to that time had a fair chance. The farmers out there do not know where they are to get the money to buy seed for another year, especially those who, like myself, borrowed the money to pay the expenses of putting in last year's crops. I do not see how there can be much wheat planted in Western Kansas this fall." Unless arrangement can be made thru the general or state government to provide the seed there is no question but that the acreage of wheat in Western Kansas will be cut down this fall. Two failures in succession have cleaned out the surplus the Western Kansas farmers accumulated during the good crop years of 1914, 1915 and 1916.

Why the Senate?

Writing from Winfield, Kan., Frank A. Chapin, discusses the question, "Why the Senate?" and arrives at the conclusion that it would be better for the country if there were no Senate. There were two classes responsible for the two houses of Congress in the beginning. The advocates of states' rights, who feared a centralized government, and also feared that under a constitution the powerful states would take from the smaller and weaker states the rights they claimed, demanded that every state be given equal representation regardless of population or extent of territory. They stood for a Senate composed of two representatives from each state to be selected as the states might decide. There was another powerful class favorable to the creation of a Senate, and they as Mr. Chapin suggests were not really favorable to a democratic form of government. They desired a legislative body separated from the people as is the House of Lords in Great Britain. Now with the old states' rights theory completely abandoned and the election of Senators by direct popular vote it would seem that the reasons for the Senate do not longer exist. Two houses of Congress simply make legislation slower of enactment and more expensive. And if there is no real need for two Houses of Congress there would seem to be even less need for two houses of the legislature in the state. Congress in my opinion, should be composed of just one house and the membership of that House should be based on the number of votes cast in the several states and not on the population. If the people of a state decide by fair means or foul, to deprive a part of the adults of the state of the right of suffrage they should not be permitted to count them in apportioning the number of representatives. Let us assume for instance that the unit of representation was 212,000 voters instead of 212,000 population or major fraction thereof, it would give one House of Congress with only a little more than 100 members. With the provision that every state must have at least one representative and one additional for every 212,000 voters or major fraction thereof, the representation from the various states would be as follows, based on the vote at the presidential election in 1916: Alabama 2, Arkansas 2, Arizona 1, California 6, Colorado 2, Connecticut 2, Delaware 1, Florida 1, Georgia 2, Idaho 2, Illinois 11, Indiana 4, Iowa 3, Kansas 4, Kentucky 3, Louisiana 1, Maine 2, Maryland 2, Massachusetts 4, Michigan 4, Minnesota 3, Mississippi 1, Missouri 5, Montana 2, Nebraska 2, Nevada 1, New Hampshire 1, New Jersey 3, New Mexico 1, New York 9, North Carolina 2, North Dakota 2, Ohio 6, Oklahoma 2, Oregon 2, Pennsylvania 7, Rhode Island 1, South Carolina 1, South Dakota 2, Tennessee 2, Texas 3, Utah 2, Vermont 1, Washington 3, Virginia 2, West Virginia 2, Wisconsin 3, Wyoming 1. This would make a total

of 127. It will be noted that the states in which the women are permitted to vote, under this plan would have a considerably larger representation in proportion to population than states in which the women are not granted that right. California for example, would have as many members of Congress as Ohio, and Illinois would have two more than the state of New York. So long as the South disfranchises almost half of the male population on account of color it would have very scant representation in Congress, which could be changed at any time the ruling white class down there saw fit to grant to the blacks the rights supposed to be guaranteed to them by the Constitution. The effect of such a plan put into operation would probably be that the white politicians in the Southern states would not only permit the colored citizens to vote but they would insist on their voting. It of course would result in universal female suffrage because none of the states would care to be deprived of representation. The law should provide that the number of representatives elected at each election should be apportioned according to the vote cast at the last general election. This would act as a stimulus to voting which in my opinion would be a good thing for the country. I have mentioned the number 212,000 as the unit of representation because that is approximately the present unit. If a larger Congressional body is desired the size of the unit can be reduced. However, if woman suffrage became universal and if the color line were not drawn in the South the total number of Congressmen under this plan, with 212,000 as the unit, would be more than 200; probably about 250, and that is in my opinion fully as large as the Congressional body should be.

Requests Historical Information

"I should like," writes an Oklahoma subscriber, "to see in your 'Passing Comment' a brief history, about one or two columns, of Serbia, Bohemia, Rumania and Poland. Give a little of past and present. Take one every week." I had assumed that the readers of the Farmers Mail and Breeze by this time had acquainted themselves fairly well, with the history of the countries involved in this war, but the subscriber who asks me to give the information is himself an educated gentleman, and it may be that he is right in thinking that a brief historical sketch of these countries would be of interest. Acting on that suggestion I shall take them up in the order in which he names them.

Let us begin with Serbia. I note that the Oklahoma subscriber gives the name correctly. The Serbians object to the name Servia, because it is derived from the Latin word servus, which means a slave. In ancient times Serbia formed a part of the Roman empire and was known as the Roman province of Moesia. At the time of the invasion of the Roman empire by the barbarians, it was occupied in succession by the Huns, Ostrogoths, Lombards and Avars. At the invitation of the Byzantine emperors of Constantinople, the Serbs, who had their dwelling place in the Carpathian mountains, drove the Avars out of what is now Serbia, and occupied the land. For four centuries they acknowledged allegiance to the Byzantine empire, but in the Eleventh Century threw it off, and established an independent kingdom. By the middle of the Fourteenth Century this Serbian kingdom had grown until it occupied a great part of the Balkan peninsula, and included the present Serbia, Montenegro, Bosnia, Albania, part of Bulgaria and the Northern part of Greece. During the latter part of the Fourteenth Century the country was invaded by the Turks, and at the battle of Kossovo, in 1389, the Serbs were defeated overwhelmingly, and Serbia became a part of the Ottoman empire. For more than 400 years the Turks ruled Serbia. Then there was a revolt and the Turks were compelled to grant Serbia autonomy. Serbia declared war against Turkey in 1876, and in 1878, by the treaty of Berlin, the complete independence of the kingdom was recognized. Under this constitution there is a legislative assembly elected by the people every four years. The executive power of the government is vested in the king and a cabinet of eight ministers. The area of Serbia is a little less than that of Indiana. The population at the outbreak of the war was about

4½ millions, but the losses have been fearful. Serbia is an agricultural country, but is rich in mineral wealth, copper, iron and zinc.

The national ambition of Serbia has been to unite in one kingdom the Serbs in the Balkan countries and Austria-Hungary. It would more than double the area of the country and give it a population of approximately 12 million. Serbia, with Bulgaria, Montenegro and Greece, formed the first Balkan alliance which fought and defeated Turkey, but immediately afterward got into a quarrel among themselves over the division of the spoils, which resulted in the second Balkan war.

The End in Sight?

Perhaps it is idle to speculate on the question of when this war will end. Out of all the conflicting rumors it is impossible to arrive at any definite conclusion. There are so many things we cannot be sure about. Is the trouble in Austria-Hungary as serious as reported? If so, the war is likely to end within six months. It may be, however, that the situation is not so grave for the German-Austrian combine as the reports indicate. All reports of disaffection and threatened revolt in the enemy country should be discounted to some extent.

Again, if the reports from Bulgaria are true that situation is going to affect the duration of the war. There are certain things which indicate that the Bulgarian situation is hopeful, to say the least. It is noticeable that the Bulgarian armies are not taking an active part in the war. There is no doubt that the war is unpopular with the Bulgarian people, and that if it had not been for an unscrupulous and ambitious monarch, Bulgaria would not have been in the war, or if in the war it would have been with the allies, rather than with the central powers. There are reports of revolt in Ukraine, and that the situation there has become so serious that Germany has been obliged to send a large army to control the Ukrainians. How much truth is there in this report? If it is really true, then the situation means a lot of trouble for Germany. I think the reports are exaggerated, but I have no doubt that there is an increasing dissatisfaction with German rule.

At the bottom of the Russian revolution is the land question. The Russian peasants are not much concerned, in all probability, about political theories and political reforms, but they are vitally interested in the land question. They hate the big land holders. The peasants' purpose was to take the lands away from these aristocrats and divide them up. The German junkers sympathized naturally with the landholders and proceeded to restore their holdings. That exasperated the peasants who had seen their dream of land division so nearly fulfilled. But I doubt their ability to give the Germans as much trouble as the reports indicate. Still, the very fact that they are hostile is of great benefit to the allies. The whole Russian situation is an unsolved puzzle. Is the Bolshevik government tottering? Is Germany getting such control of Russia that she will be not only able to get vast and necessary supplies from there, but able also to recruit her armies from the vast supply of Russian manhood? Is the Bolshevik government about to make a military alliance with Germany?

These are questions to which there is no certain answer. On the whole, the Russian situation is looking rather better from the allied standpoint. So far Germany has not obtained the advantages she hoped for from Russia. What of the Western front? Why is von Hindenburg waiting? Is the delay simply for the purpose of organizing his forces for a more powerful drive than any which have preceded it, or is it delayed on account of the troubles at home?

Who is right about the submarine situation? Is von Capelle lying when he declares that submarines are being built faster than they are being sunk and that the new ones are more powerful and effective than the older ones, or are Admirals Jellicoe and Sims correct in their expressed opinion that undersea boats are being sunk faster than new ones are being built, and that the submarine has failed? It is difficult to obtain facts. Opinions must be based necessarily on a few well established facts pieced out by surmises and guesses.

It is my opinion that we are at the beginning of the end. I believe that this will become apparent within the next six weeks. I do not believe that

there will be any more German offensives after this autumn and I don't expect any very serious fighting next year. The terms of peace will be agreed upon, in my opinion, some time next summer, but the serious fighting will have ended before that time.

I hope the war will end in the utter overthrow of the House of Hohenzollern and the House of Hapsburg. I was about to say that if it does not, it will be a most ghastly failure. This, however, is not necessarily true. The German people may complete the overthrow of the Hohenzollerns after the war as a business necessity. If the war ends with the military Prussian junkers still in control it will mean a commercial boycott for Germany, and complete the financial ruin of that country. That may lead to a revolution and the overthrow of the German government, even if the kaiser should not be unseated as the result of a military victory. My guess then is, that fighting will be ended virtually this year, but that terms of peace will not be arranged until sometime during the year 1919. Events may prove that I am a bad guesser.

The Profiteers

The report of the Federal Trade Commission has created a profound impression. It shows that at a time when the people are being called on to make enormous sacrifices, a few already enormously wealthy men have increased their fortunes by hundreds of millions of dollars. Five packers, Armour, Swift, Morris, Cudahy and Wilson, control the meat market and have made a profit in three years of 140 million dollars. The millers have gotten theirs. Their profits amount on the average to 38 per cent. The coal men also have raked in a large amount of coin and the report indicates that the law has been evaded in order to turn the trick. It is this sort of thing which creates Nonpartisan Leagues and encourages the formation of I. W. W. organizations. It strengthens the feeling that the government must take over the control of these great industries and operate them in the interest of the people. Apparently the men at the heads of these industries believe that they are above the law and that government should be organized and maintained in order that they may accumulate more wealth.

The people of the United States are more than 99 per cent patriotic. They have responded promptly and cheerfully to every demand made upon them by the government. They have not complained because their sons are sent to war and they asked to contribute hundreds of millions to the Red Cross, the Y. M. C. A. and other war charities. They are ready and willing to do much more than they have done, but it grinds them to think that while they are sacrificing, a few are gathering riches beyond the dreams of avarice because of the war. Furthermore I do not believe that they are going to stand for it.

Believes Victory Will Come

"I have had unbounded faith that we shall win the war," writes Jesse L. Shore, of White City, a veteran of the Civil War who is a member of Company M Ninth Pennsylvania Volunteer Cavalry. "There is a just God who presides over the destinies of men and nations. The kaiser is too wicked to win. Any man who will let his soldiers ravish women, cut off the arms of innocent children and murder old men, never will whip the United States. The kaiser will be brought low. The good people of Germany will rebel against him and great will be his fall. There will be a republican government formed in Germany after the people see that the kaiser has brought ruin to his country."

"We are fighting God's war and the United States army will be the most honored army in the world. Send the boys who want to go and bid them God speed. In the Civil War four boys and myself left school and walked 20 miles to get to the railroad, and enlisted. Three of those boys were buried in the Sunny South. The other boy and I came home at the close of the war, cripples for life. I carry a wound that has pained me every day of my life for 53 years, a reminder of the dearly bought liberty of this country."

Has Faith in the League

The big problems in this country at the present time are first how to win the war, and second how to rearrange business after the war so that there will be as little hardship as possible while we are drifting back into natural channels. For the purpose of making our transportation system as efficient as possible during this trying period, the government has taken over the railroads of the country and according to reports from Washington, the government managed railroads handled 20 per cent more freight in April, 1918, than during any other one month. The government has cut operating cost and increased the business. There is only one railway ticket office in Washington now where there used to be seven.

Now the Nonpartisan League wants the government or the states to go much further in establishing war efficiency by taking over the big food trusts which are extracting hundreds of millions in dividends from industry by their advantageous position of being able to control both the buying and the selling of the things we have to use in

order to live. There are many reasons why this should be controlled. We often have heard that food will win the war and all will admit its importance. Why then should the government and the people be at the mercy of the owners of the cold storage plants and the big concerns that make the raw material into foods? The government should have complete control of this industry. Not only would this help the war but it would help the people both during and after the war. We have heard many complaints about the high cost of living, but as yet have found no solution of it. The Nonpartisan plan to operate the food industry at cost would solve this problem, leaving much more money in the hands of the people to buy Liberty bonds and contributions to the Red Cross.

Hlinwood, Kan.

Geo. J. Klein.

The Governor Suits Him

I have just read Governor Capper's letter in the Farmers Mail and Breeze in behalf of the farmers of the state of Kansas. I feel so grateful to him for the way he stands by the farmer. He voices my opinion to the letter and has all along. We must make the law apply to all people, rich or poor. We are all citizens of America, and loyal to our government, but not loyal to the profiteers or grafters. Governor Capper is not asking anything but justice to all. If it is right to place prices on farm products, it is also right to fix prices on all manufactured goods, giving all a liberal profit. The products of the farm are holding up life and strength to rich, and poor alike. If all the governors of all the states would take the position Governor Capper has, perhaps the National Food Administrator would look after the other side of this question a little closer.

I was a soldier in the Great Rebellion and certainly was loyal to my country then; and have no reason now to be disloyal to my country. I am proud of America and our battle flag is now in Washington riddled with bullets, but I am not loyal to profiteers nor is any honest man who is loyal to the government. Let us have and keep a government for all men, rich and poor alike. A man is as good as the other, if he is a honest citizen. We are looking forward now to electing Governor Capper to the United States Senate this fall, and we believe he is the right man for that office.

Lecompton, Kan.

Need Better Workers

A subscriber from Narka, Kan., writes, "If there was less education and more willingness to do good, honest labor among the young people of today the world would be better off. I also think that the world would be better off if no one man was permitted to own more than 160 acres of land for himself and the same amount for each child who might wish to make the farm his home." Limited land ownership is certain to come and possibly private ownership of land will be abolished entirely.

Truthful James

"Speaking of geniuses," remarked Truthful James, "maybe you never heard of Archimedes Biggerstaff. I suppose that his parents must have had some knowledge of Greek history when they fastened that name on him. The boys of course, wouldn't stand for that much name and so they dubbed him Chim, but he always wrote the name out in full when he registered at a hotel or when he signed a letter. Maybe it was the name that influenced Archimedes, but anyhow, he always had it in his head that he was going to astonish the world with some invention that would make the old original Archimedes look like a brush legger by comparison. Archimedes used to say that of course Edison had worked up quite a reputation, and probably knew a great deal about electricity, but still there were a lot of important things that Edison never found out and in his opinion never would until somebody else showed him."

"One of Archimedes's hobbies was the control of heat and cold. He said that he was working on an invention which would solve the whole fuel problem in the winter and the heat problem in the summer. He figured that when the temperature was from 100 to 110 in the shade there was as much heat in 10 cubic feet of atmosphere as there was in a ton of hard coal and he proposed to compress the rays of heat in 10 cubic feet into the space of 1 cubic foot, so that 1 cubic foot of his compressed hot air would be equal to a ton of the best hard coal. This compressed heat was to be put into a container which was a perfect non-conductor so that you could store it away in the cellar or out in the wood shed or anywhere until needed for use. It would be possible, Archimedes said, to pack away the equivalent of 100 tons of the best hard coal in a bin 10 feet square and 10 feet high and then when winter came it would be possible to attach a pipe to the container and let the heat out as fast as needed to warm the dwelling house or whatever kind of building you had. He also was working on another invention to collect the cold in the winter time and compress it into containers and store it away for use in the summer."

"Just by way of variety Archimedes has tried his hand on a lot of other inventions. For in-

stance, he invented a combined hair restorer and hair dye which was not only to color the hair or beard any hue desired, but it was to make hair grow on any bald head. There was old Elias Shoemaker who had been bald for 40 years and who grew the greatest crop of whiskers of any man in his county. Elias's wife died and in about six months he began to look around for another. His whiskers were streaked considerably with gray and his hair was getting white. It occurred to him that if he had a full head of fine brown hair and whiskers it would help a great deal in making an impression on the young women. Archimedes told him that he had a lotion that sure would grow a new crop of hair where the bald place was and also change the color of both his hair and whiskers to a beautiful brown and that it wouldn't cost him a cent. Elias was a man who disliked being pried loose from his money and the idea of getting a new head of hair and turning what he had together with his whiskers to a beautiful brown, sounded good to him. So he told Archimedes to go to it. The first dose didn't seem to have much effect but the second did. Somehow or other Archimedes had made a mistake in the coloring matter and gradually Elias's beard and hair and the bald place on his head turned to a deep green. Elias was hopping mad and insisted that Archimedes must do something to take out the color. Archimedes did his best but the only effect was to set the color. Cows would come up to Elias and try to take bites out of his whiskers under the impression that they were alfalfa. Finally he had to shave off his whiskers and have his hair clipped, but that left him with the top of his head painted green but no hair showing. That made Elias so hot that he hunted Archimedes up with the intention of licking him. Archimedes saw him coming and had a hunch of what he was coming for and made his get-away. Elias chased him for half a mile until his wind gave out. It was six months before Archimedes dared to come back into the neighborhood.

"Another invention that Archimedes worked on was one to stop the bray of a mule. I learn that they are trying to eliminate the bray of the mule over in France now, but Archimedes was the first man I ever heard making an attempt of that kind. He got his invention, as he thought, in working order and went out to the barn to fasten it on a large dun mule. They found Archimedes in the corner of the stable an hour or two afterward, but it was the next day before he came to himself and was able to sit up and notice things."

Give Us 100 Per Centers in Patriotism, Not Profits

Governor Capper at Olathe, July Fourth

Give us an Americanism that is not profiteering in patriotism. It is time for straight-out Americanism, of the simon-pure, unadulterated, 100 per cent kind, with no ifs, ands, nor buts about it.

We want in Kansas and we are going to have it, that sort of Americanism which will put the good of country above personal advantage, gain or profit; an Americanism at home that is willing and glad to make personal sacrifices in some degree commensurate with the sacrifices made by the strong young men of the nation who are leaving all, risking all and giving all with a happy smile upon their lips.

We want an Americanism that places God and country above every other consideration in the world—an Americanism in keeping with that of the noble women of the state who gave their sons and husbands to the war, dearer than life itself—hiding their tears while their hearts were breaking.

We want an Americanism, not of the shoot-mouth variety—the kind that talks big and does little—but an Americanism that will sacrifice and sacrifice again and still again. There is no room in Kansas, today, for the Hun-American. The loud-mouthed variety, the silly fools who know more than the combined wisdom of the American people and their chosen representatives, have been pretty effectively silenced.

The open traitor has been driven to cover. The notorious slacker in most communities has become a marked man. But there are still at large a few skunks and reptiles, some of them loud in their professions of loyalty, who by sly hints and innuendo, are spreading poison skillfully calculated to create suspicion and unrest among our people.

There are still at large men who brazenly hamper war-work in order to gain some selfish end or to pull down a rival or competitor; men who discourage Red Cross workers; oppose conservation and spread abroad lies about conscientious men who are giving time and effort to aid the Government. These Huns at home are a thousand fold more dangerous than the ignorant, foolish foreigner who has not yet been thoroughly Americanized, and it is against them that Kansas must be upon its guard.

We want an Americanism that is not profiteering in patriotism.

Arthur Capper
Governor.

Less Profit in Man-Power Farming

The Tractor Answered the Big Question "How to Do Work Right at the Right Time"

UNTIL THE coming of the tractor, the plow was the slowest of all farm machinery. It was the snail on the farm. It turned only one furrow at a time, and it moved at a rate of 2½ miles an hour. A cablegram can be sent completely around the world while a horse-plow is moving 200 yards. Every 5 square miles of plowing with a horse-plow means a distance traveled of 25,000 miles. It means a single furrow around the whole earth. Merely to plow enough land for one loaf of bread requires a single furrow 50 feet long. But with a tractor the single furrow becomes a thing of the past. We are enabled to turn 12 or more furrows at once. This is equal to a single plow moving at the rate of 30 miles an hour. This is high-speed plowing—the latest great achievement on the road to cheap production.

Fully five-sixths of our farm work is now being done by machinery. That is why we produce one-fifth of the wheat, one-half the cotton, and three quarters of the corn of the world, altho we are only 6 per cent of the human race, and only three-fifths of us live on farms.

Talk about the high cost of living! If it were not for farm machinery we could not live at all. Our cities would shrivel up from 40 per cent of our population to 3 or 4 per cent as they were in the pre-machinery days. A hundred years ago four farmers could raise just barely enough wheat to feed themselves and one other family; but today North Dakota alone grows wheat enough to feed herself and 12 million people besides, says the author of Horse, Truck and Tractor.

No farm can be run today at a profit with hand-labor tools. No banker would lend money on a farm where the grain is being cut with hand sickles and threshed with flails. It is the machinery, combined with scientific methods and large units of production from which farm profits are now being derived. Small farmers, with small and old-fashioned operations, are making no profits at all.

Nothing is more difficult than to move the mind to a new habit of thought. The United States has grown up with horses. It is accustomed to horse-plows and horse-wagons. It has learned to look upon the horse as an absolutely indispensable helper, both in the city and on the farm. In short, the horse owner has horse in his brain; and it is, therefore, a slow and difficult matter to move him from the horse habit to the engine habit.

McCormick invented his first reaper in 1831, but at that time the farmers of the United States were not ready for reapers. They had sickles in their minds. They could not imagine the cutting of grain by anything else than human muscle. The very idea of "cutting grain by horses" was laughed at for years as a most absurd and preposterous joke. McCormick fought against the sickle idea for 14 years before he sold his first hundred reapers. Then came the gold rush to California in 1849. Tens of thousands of laborers became gold seekers, so that there was a dearth of labor in the harvest fields. The farmers were compelled to buy reapers. They had to choose between buying reapers and letting their wheat rot in the fields.

In the same way, horse owners are being compelled today to use trucks and tractors. No matter what objections they may have in their minds, there is nothing else to do. The present situation cannot be handled with horses and it can be handled with machinery. The war has taken the nation's men. Machinery must take their place.

No other invention of man has been so useful as the wheel that drives itself. Merely the wheel, without the engine, was a great achievement. A wheel is vastly superior to legs, from the point of view of efficiency. A wheel, we may say, is a circular leg with a perpetual foot. Nature did not

give us wheels. It gave man nothing but two spokes, without a rim; and it gave the horse four spokes, without rims.

When land was \$20 an acre, and horses \$50 apiece, there was no urgent need for engines, whether in a city or on a farm. But today we have an entirely different situation. Ordinary farm land sells for \$200 an acre. Ordinary horses, without a pedigree, have gone up until \$1000 will buy only three or four.

While the ordinary horse and wagon is going 4 miles an hour, the one-ton truck will cover 18 miles. It can make a delivery 10 miles from the store very nearly 2 hours quicker than the wagon. Where time is money in delivery, such a saving is most important. Even a five-ton truck, the largest size needed in most businesses, can go 10 miles in an hour, or about three times as fast as a three-horse wagon. Besides its greater speed the motor truck has the added advantage of being able to work all day and every day in rush periods without



rest. It can run night and day continuously when need be. It costs much less to store than idle horses; it takes less room. A garage 35 by 60 feet will hold five heavy trucks. Thirty-five or 40 horses and eight or 10 wagons would need three or four times this space. Moreover bad weather affects motor truck deliveries very little.

The farm tractor and the stationary farm engine have taken mechanical power to the farm. The latter replaces the farmer's own muscle and lightens his work. The tractor, which is replacing the farmer's greatest source of power, is the great history-making machine of the 20th Century. The reorganization of the farm which must take place will surely hinge on the solution of the power problem. The problem of applying mechanical power to the soil is vastly different from that of collecting raw materials for use in a central power-driven factory. The farm power plant must be capable of going from place to place and doing its work wherever found.

By its rapid work the tractor renders the farmer less dependent on Nature's whims and insures greater yields by giving him the upper hand of unfavorable conditions. In the corn belt it enables deeper plowing to be done without the great excess of horse flesh which costs so much for maintenance thruout the idle months of the year.

The coming of abundant power to the farm means enormous things in the way of better farming and cheaper farming. It enables larger areas to be cultivated as well as before, and the same areas to be cultivated much better. Either way, it increases the effectiveness of the farmer and enables him to produce at a much lower cost of operation expressed in percentage of the total crop.

The machine is making history, because for wages it substitutes interest on investment. The man with only his labor capital is coming to the same point on the farm as he has come elsewhere. He cannot compete with machines that represent money and a lower cost of production. It is only natural for him to oppose the introduction of such equipment.

Yet the small farmer cannot stop the coming of large machinery and mechanical power. He should have no wish to do so, since machinery means cheaper production and a saving of human energy, which is our most precious possession. We are, however, vitally interested in knowing who will buy the machine, since the men whose money buys the machine unquestionably will have the direction of its operations.

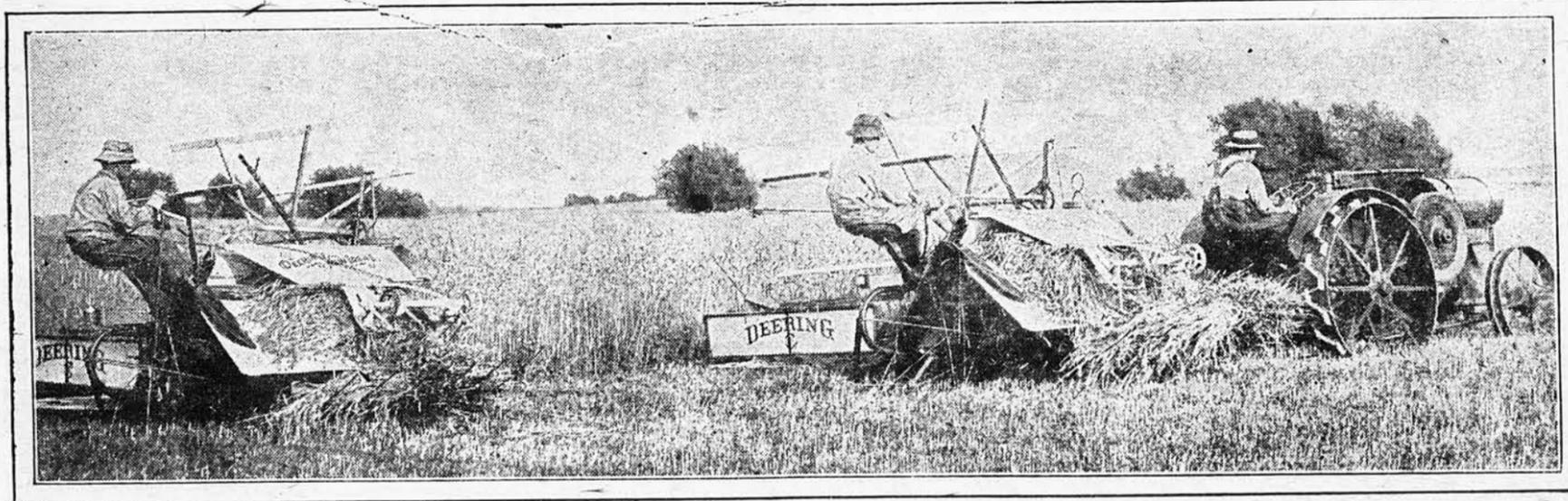
The larger the steam engine for plowing, the more economical it is of labor and fuel in relation to output. The larger the engine, however, the wider the plow, and the greater the necessity for adapting it to uneven surfaces. The steam-lift plow, controlling its gangs by means of cylinders taking steam from the engine, taught hand-lift plowmakers the importance of flexibility.

Finally we came to the highest achievement of the plowbuilder—the modern engine gang. Strong, compact, simple, flexible, with provision against serious accident, with provision for quick repair—a dozen makes divide a large share of credit for the commercial success of the farm tractor. The type with a lever to each plow is the most flexible. The type with two bottoms to each lever is in some respects easiest on the plowman. The type with two bottoms independently acting but lifting two at a time is a more complicated compromise.

The weight of a plow frame supported by the drawbar of the engine is designed to give the traction wheels a better grip. One plow is made in sections of four, five and six bottoms, by the joining of which any size may be had with a flexible frame. By removing the landside entirely another designer reduces the draft far below the average. With all these plows extra shares and both stubble and breaker bottoms may be had. One or more plows are often detached in breaking sod, a heavy crusher attached to the frame taking their place.

Plowing, of course, is the tractor's first duty, but at the same time it may disk the ground. It may spend its power in deep plowing by day with either big disks or steep stubble moldboards. Three-sixteenths of an acre an hour for each disk or ¼ acre for each 14-inch moldboard is fair capacity. Again the tractor may be equipped with a headlight for working at night. The automobile is frequently the errand boy for a tractor outfit that never stops.

The ability of the tractor to combine operations appeals particularly to the farmer who wishes to hurry; to save repeated trips over the soil he has worked hard to pulverize, and to avoid loss of power in loose footing. The plow, the packer and the disk, behind a tractor, will make a good seed-bed in a twinkling.



Millions of Tractors to be Needed

Unlimited Possibilities for Machines that are Able to Do Work Thoroughly and at the Right Time

BY HUGH M'VEY

THE FARMER who owns a tractor, or is thinking of buying one, will be interested in the growth that is promised the industry. For as the factories become larger their overhead expenses will be decreased and the price of machines cheaper, and as the volume of sales grows throughout the country more service to individual users will become available. As it has been with the motor car so it will be with the tractor. There were no cheap motor cars 10 years ago, and few repair shops or stores carrying accessories and supplies. If a motor car broke down on a country road in those days it was a serious matter; much time was lost before it was put in motion again. The service on tractors naturally has been greater from the outset than with motor cars because usually it is the motor car dealer who handles the tractor, and his experience with motors has advanced his ability to serve the tractor user.

It is estimated that 1 1/4 million tractors eventually will be used in the United States on the land now worked with horses. This does not mean a decrease in the number of horses, however, for the tractor will supplement the horse rather than displace him, being able to handle the big jobs quickly and in season, thus paying its way even where the horse equipment of a farm is not reduced. The tractor will make possible the producing of more grain on the same acreage, increase the acreage that a man can handle, and open new farm land for cultivation.

Tractor-Size Farms

There are at present about 470 million acres in the United States in actual cultivation, divided into 6 million farms. Of this number more than 2 million farms are of tractor size. Possibly in the distant future all of these "tractor size" farms will be equipped with the new type of power, but it is estimated that only about four or five farmers in every eight will, during the next decade or more, buy tractors.

The chief reason why we may expect the sale of a great number of tractors is on account of the tractor's ability to do work that is not at all possible with the horse, just as the horse and ox when replacing manual labor brought on a gradual, but extensive development in agriculture; the number of farms increased, larger farms developed and fields became larger as man's work was supplemented by animal power. Just so will the tractor, in supplementing horse power, again increase the number of farms and the size of the fields.

There are more than 60 million acres of swamp land in the United States, which the Secretary of the Interior estimates can be converted into farms. Extensive ditching, tiling and deep tilling is necessary. All this the tractor can do. The caterpillar type of tractor is fitted ideally for work in soft land and in mud, altho the common wheel type of tractor with wide extensions on the wheels is almost as valuable. Machines can be operated by tractors in this soft land where horses would mire down. This swamp land, when fully developed, would require about 300,000 tractors to maintain thorough cultivation.

A Great Stump Puller

In the cut-over timber land the tractor has also an opportunity. There are 200 million acres of this type of land in the United States awaiting development. The tractor can give the excessive amount of power required on short notice for pulling stumps and plowing up heavy roots, as well as leveling off the land after these operations. The belt pulley makes easy the drilling of large stumps for blasting and the sawing up of the waste timber. The reclaiming of this former forest land and its tillage will require about a million additional tractors.

Still another possibility for the extensive use of

tractors is found in the plains district where the rainfall is light. Very little of the land in the United States with a rainfall of less than 20 inches a year has been made productive. There are about 250 million acres of such land. In China wheat is produced on land with less than 10 inches of rainfall. This is because an excessive amount of labor has resulted in more thorough cultivation than much of our Western land has received, or can receive with the horse for farm power. The tractor as a conserver of moisture, having ability to plow deep and to handle large areas quickly and in season, can lower the rate of evaporation on this soil, and store more of the moisture for the crops. This quarter of a billion acres of plains land will call some day for another million tractors.

In addition there are the undeveloped tropics where millions of acres of luxuriant plant growth will create a tremendous food stuff production. The excessive heat and humidity of the tropics make animal labor impracticable. American manufacturers undoubtedly will sell a considerable portion of the tractors used there, thus further decreasing their overhead expenses, and making tractors cheaper for the farmers of this country.

Chances are Unlimited

As a matter of fact, there can be no safe guess on the number of tractors that will be sold within the next few decades. Undoubtedly it will run into the millions. The summary of the potential market for the United States, given in connection with this article, gives us a total of more than 3 1/2 million. If we add to this the sales that will be

Potential Sale of Tractors

For use on present cultivated acreage in United States.....	1,250,000
On the 60 million acres of swamp land.....	300,000
On the 200 million acres of cut-over timber land.....	1,000,000
On the 250 million acres of plains land where rainfall is light.....	1,000,000
Total tractor need in United States	3,550,000

made in the foreign market we reach a figure in excess of the automobile registration as it stands in America today.

Almost No Limit Now

Indeed, the only limiting factor in the sale of tractors is the degree of demand for food stuffs. At this time when we are having wheatless and meatless days, and practicing other forms of food conservation it scarcely seems possible that an abundance of food ever again will be enjoyed, yet the end of the war, we all hope, will bring about some such result. With better governments and their resulting strict adherence to sanitation and health rules we may expect a rapidly increasing population. Europe increased from 310 million in 1870 to 425 million in 1910, altho emigrants by the ship load were leaving its shores.

As the manufacturing of tractors becomes a greater industry more capital will be attracted, insuring stability of manufacture, with fewer failures and changes in firms, assuring the replacing of broken parts and establishing confidence in all the standard makes. Likewise more men with cre-

ative genius will be attracted as the unlimited market is unfolded, insuring a constantly increasing efficiency of the machines.

All of which is very reassuring to the farmer now owning a tractor or thinking of buying one. It points to cheaper machines, a greater service from the agent or repair shop, more power from tractors, and in addition advantages which we cannot predict today.

A New Station Director

Kansas farmers and President W. M. Jardine of the Kansas State Agricultural college are to be congratulated upon being able to obtain the services of F. D. Farrell of the U. S. Department of Agriculture as director of the Kansas Experiment station, and dean of the college of agriculture. He has notified President Jardine that he will accept the position tendered him and that he will be ready to begin his duties September 1.

He is a real Westerner who had very successful experience as a practical farmer and ranchman before taking up his special work with the U. S. Department of Agriculture. He was director of the Idaho branch experiment station for two years and then accepted a position with the U. S. Department of Agriculture as Assistant in Cereal Investigations under President Jardine who then was in charge of that work.

When President Jardine was elected to a position in the Kansas State Agricultural college Mr. Farrell succeeded him at Washington. Later when the government needed a man able to carry on the work of the reclamation projects and desired some one who could help farmers get started right, they chose Farrell for the job and he has had charge of that work for the past four years.

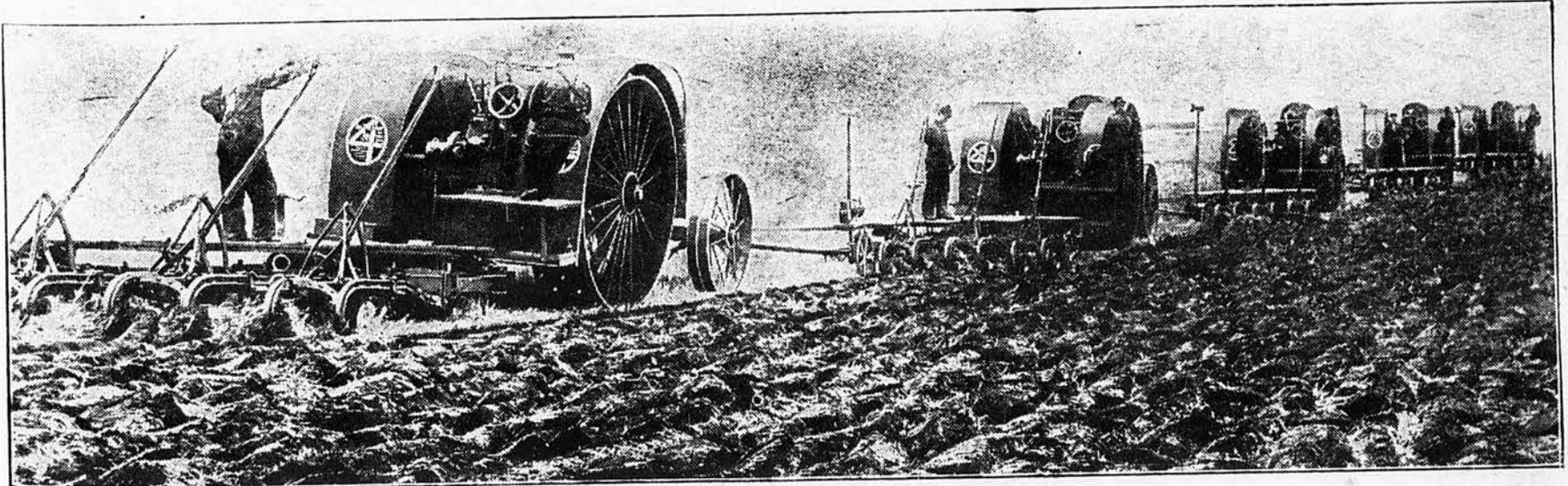
He is regarded as one of the strongest men now in the service of the U. S. Department of Agriculture. He is thoroughly familiar with farming in nearly all the states west of the Mississippi River and is well informed about grain crops and livestock. Prof. Farrell is an excellent speaker and has no equal as a farmers' institute worker. His energy and enthusiasm coupled with his other good qualities make his success here a certainty. The Farmers Mail and Breeze extends Prof. Farrell a hearty welcome to the state and congratulates the farmers of Kansas on being able to obtain his distinguished services. He is going to prove himself to be the right man in the right place.

Tractors After the War

BY RICHARD HAMILTON BYRD

"One of the developments of the war that will prove of the greatest benefit to the human race is the introduction of the farm tractor; it will revolutionize farming all over the world," said Samuel Neeley, an engineer of Chicago, in an interview in Washington the other day. "The farm tractor was in an experimental stage before the war began, but it was not until the emergency demands of the war made speeding up on the farm imperative that the wonderful advantages of the farm tractor became apparent to every one. Last fall in one of the Western towns exhibitions of the farm tractor attracted crowds so great that a town of comparatively small population grew into a large-sized city almost over night.

"As with other inventions of American origin, the farm tractor is finding its greatest development in other nations. The farmers of South America have been giving a great deal of attention to this method of farming, and the result is that the sale of tractors for farm use in that country have increased greatly. Europe in the next few years will do nearly all its farm work by means of tractors and farm power machinery."



Jayhawker's Farm Notes

BY HARLEY HATCH

Specifications

- MOTOR 4 cylinder, 4 speed, water cooled
- CYLINDERS cast separate, removable heads
- BORE AND STROKE 6 1/2" bore, 6 1/2" stroke
- IGNITION K. W. magneto, impulse starter (no batteries)
- GOVERNOR centrifugal, one of the oil pans
- CARBURETOR Emson 1
- CLARIFIER Emson, separates oil from carburetor
- COOLING Water cooled
- crank pin bearings
- R. P. M. of motor at normal
- Carburetor—Big 4 Bennett—Kerosene
- Magneto—20" diameter
- Ignition—K. W. High Tension Type "H"
- Ignition—K. W. High-tension magneto, equipped with quick starting device, no batteries, coils or switches
- brushing governor, in oil bath
- 1 1/2"
- 1 1/2"
- abrasive fabric faced cone
- backed.
- and positive.

Why Is It?

That practically every tractor manufacturer (and there are 40) using K-W magnetos as standard equipment, include them in their specifications or catalogue?

They do so because the record which the K-W magneto has made for itself—by actual field operation—during the last ten years—has given it a reputation that *tractors built for quality demand.*

These 40 manufacturers pay more for K-W Magnetos but it is their assurance to the tractor buyer that he is being provided with the most reliable ignition system, guaranteeing to him a "No Trouble" service day in and day out.

LOOK OVER the K-W equipped Tractors at the Salina Tractor Demonstration and visit the K-W Booth. Ask the owners of K-W equipped tractors you meet about K-W reliability and efficiency. They know.



Write for a list of K-W Equipped Tractors

High Tension MAGNETOS

are true High Tension types. No Batteries and no Starting Coils are needed. The K-W Magneto starts any size motor *easily and quickly.* It gives the hottest known spark—fires any kind of fuel equally well—is timed accurately; and last but not least, its construction protects it against dirt, water and oil.

If you are not using K W Ignition now, write us. Let us show you how a K-W Magneto will be a time, money and fuel saver for you.

Insist that your new tractor be K-W equipped. Look for the K-W Trade Mark.

THE K-W IGNITION CO.
2871 Chester Ave. CLEVELAND, OHIO, U.S.A.



Corn Harvest Help

WHEN you are wondering where on earth you will get help to cut or husk your corn this fall, remember this:

An International Harvester corn binder, with one or two men to handle the job, will cut six to eight acres a day, bind the corn into neat, easily handled bundles, and load them on a wagon to be hauled to ensilage cutter or husker and shredder.

Or, if you must leave the stalks in the field, a corn picker will take off all the ears, husk them, and load them direct into a wagon, also at the rate of five to seven acres a day.

If you use a binder, you get all the crop. If you use a picker, you get all the ears. The same help that planted and cultivated your corn can harvest it, at the right time, and at the lowest possible expense.

**Deering, McCormick, Milwaukee, or Osborne Corn Binders
Deering or McCormick Corn Pickers**

furnish the best kind of corn harvest help. There may be enough of them to go around this fall, but if you want to be sure of having your machine in time, place your order with the local dealer, or write to us for full information, just as soon as you can.

International Harvester Company of America

CHICAGO U S A
Champion Deering McCormick Milwaukee Osborne

Corn is in Tassel. Manure Increased Wheat Yields. Harvesting Flax Crop. Threshers Are Busy. Building a Granary.

CORN IS still in good condition but more rain will improve it. The soil is loose and the ground in all cultivated fields is almost entirely free from weeds and grass. In the 36 years I have been farming in the West I never have seen the cultivated fields in better condition so far as lack of weeds and grass is concerned. Corn is beginning to show a few tassels.

Most farmers expected good threshing returns this year but the reality surpasses any expectation. I have yet to hear of a farmer who did not get more wheat than he expected. This week a neighbor threshed wheat grown on high upland which produced 28 bushels to the acre, making a greater net return than the value of the land on which it was grown. This wheat grew on what may be called naturally poor soil altho it may be questioned, of course, whether land which will make 28 bushels of wheat to the acre is as poor as it might be. This wheat was pastured quite heavily with sheep which seemed to make it stool out more than commonly well. It was the exceeding thickness of the stand which made this high upland produce so well.

The smallest upland yield I have heard of so far in this neighborhood is 17 bushels to the acre. The land on which this wheat was grown produced more than 30 bushels to the acre last year. Wheat this year which followed wheat in many instances is not producing so well as wheat which followed oats. The upland yield of wheat ranges from 17 to 35 bushels. The yield is even greater than this on the Neosho river bottom but the difference in yield this year between upland and river bottom is not as great as usual.

A most wonderful difference is shown this year where the wheat was manured, either by top dressing or plowing under. One farmer told me that the best results followed plowing under the manure and the next best a top dressing before winter set in. But no matter at what time or in what way the manure was applied it gave good results. Probably in no case was the increased yield less than 5 bushels to the acre which, with wheat at \$2.05 a bushel, made a return from a single coat of manure not often equaled. And it is not likely that the wheat took all the fertility the manure supplied; some no doubt will remain to help future crops. The manure did not need to be spread heavily to produce the best results; in fact, the maximum yield seemed to follow an application of about six loads to the acre.

On this farm 2 acres of the highest, poorest land on the farm was given a coat of strawy stable manure last summer just before it was plowed for wheat. This light coat of apparently almost worthless stuff produced at least 5 bushels more to the acre than was grown on better land just below it. I am aware that such results could not be expected every year; there might possibly be years when the manure would prove a detriment but they will have to be different years than we have been having since 1910. Wheat seems able to assimilate manure and make the best use of it because wheat grows during the cool weather when manure is not only a plant food but a stimulant as well.

Should the corn prove a light crop this season I look for the wheat acreage in Coffey county to be increased to more than the 40,000 acres grown this year. That acreage is an increase of almost 800 per cent over the wheat crops grown in a series of years prior to 1917, and it seems most fortunate that the increase was made. If this county has raised 1 million bushels of wheat, as now seems most probable, any shortage of the corn and kafir will not be so greatly felt. There has been no growth of weeds or grass in the fields this year, and the soil where

our wheat grew is still so light and loose that I am convinced it could be plowed in pretty good shape. The tractors which are being sold by the score in this county will also make plowing a quicker and easier job. In view of the world shortage in breadstuff let us hope for another big wheat crop next year; perhaps, we can't expect as much as was given us this year but even an average yield would do much toward feeding the world.

The flax crop of this county which shows a very small acreage compared with what was sown here in former years was harvested last week. Like the oats, flax ripened one week too soon and the yield will suffer on that account. A neighbor who has a field of flax which seemed good for 10 bushels to the acre a short time ago told me he would be satisfied with a 5-bushel yield. The price of flax seed will no doubt be above \$3 a bushel which will make the cash value of an acre of flax not far from the value of the average acre of upland oats. Enough oats have been threshed to show that the yield is from 25 to 30 bushels to the acre. But the oats can be fed on the farm while the flax must be hauled off and sold for what the other fellow wishes to give for it.

Several threshing outfits are running within hearing distance of this farm, one of them being a big new one which requires eight racks to keep it going when threshing from the field. With such an outfit it takes something like 20 men to keep things moving aside from the regular machine help. For this reason we prefer to stack and for the last three days have been busy in the wheat field; last night saw the last bundle go into the stack. Wheat is much harder to stack than oats and we had to use considerable care to keep the stacks from slipping but luckily we had no slip aside from a few bundles. When we left the stacks they were all standing straight and, altho the stacks are not pretty, we feel safer to have the wheat in them than to have it remain in the field for perhaps weeks waiting for a machine to thresh out of the shock. The oats still remain to be stacked but stacking them is a quick and easy job compared with stacking wheat. Our wheat made just two good loads of bundles to the acre which makes straw pile up rather fast. Some of our neighbors have wheat grown on land which has been manured within the last two years on which I am satisfied there are three good loads of bundles to the acre.

The work now ahead of us on this farm consists of the prairie haying and the building of some sort of a granary to hold the wheat and oats. The old granary is a combined crib and bin affair but it is getting too rotten to hold anything now but ear corn and it is difficult to keep that inside. Our idea is to build another combined granary and crib with driveway between. We may not need the crib this fall but, perhaps, we can use it sometime. It is much cheaper to build all under one roof. For the roof we shall use the heavy prepared asphalt roofing covered with a slate preparation which is guaranteed for 15 years by a reliable company. We have some of the same kind of roofing already in use and I believe it will last 15 years. It has the merit of being fireproof, of being quickly laid, of looking well and of being only about half the cost of shingles.

Big Mexican Wheat Crop

"Mexico is harvesting one of the greatest wheat crops in the history of that country," according to a prominent business man of Torreon, Mexico. From estimates made, "it is calculated that the wheat crop which is now fast maturing in Mexico will yield approximately 25 million bushels."

All farmers who are using tractors should write the Farmers Mail and Breeze about their experiences.

Farm Engineering

By K. J. T. Ekblaw, Farm Engineering Department,
Kansas State Agricultural College, Manhattan



IN A LITTLE four-page folder recently gotten out by the state defense council containing suggestions for greater efficiency in using the available farm power of the state, there are some excellent suggestions on handling the tractor. The folder also gives pointers on caring for the horse, some of which just as happily may be applied to the tractor; for instance, "treat kindly and give him the best of care;" "avoid overspeeding;" "watch carefully."

Now that rush of work and hot weather come on together, it is significant to notice and remember this; the admonition given in regard to the horse is, "allow rest periods occasionally," while concerning the tractor the pitiless remarks, "show it no mercy," and "work it night and day," put it right where it belongs.

The tractor suggestions are all good ones, and we include them here:

Don't let the tractor be a slacker. Give it good care and proper attention, but show it no mercy.

Use it for your neighbor when possible. Exchange work.

Use the tractor for heavy work, releasing horses for plowing corn.

Be prepared. Have everything ready for continuous work.

Do your own tractor work at the earliest practical moment.

Remember that experiments and experiences prove that early preparation of ground for wheat brings higher yields.

Work the tractor night and day. Provide light for night work.

Use the tractor for pulling harvester. Necessary hitches are easily provided.

Give the machine a careful looking over after each day's work. Systematic care insures constant efficiency.

Teach some one else the care and operation of the tractor. Girls and young women soon become competent to operate tractors.

Proper Mix for Concrete

What is the proper mix to use in making concrete floors in a dairy barn? Will it be necessary to roughen up the concrete to prevent slipping?

Answer: Concrete floors in a dairy barn should be not less than 5 inches thick. The concrete should be rather stony, but should not be too expensive, so use a medium mixture, say 1-2-4 or 1-2-3-5 for the bottom layers, and about 1-2 for the finish coat. Be sure to place the finish coat as quickly as possible after the first layer is mixed and laid or else the two layers will be likely to separate and the floor will fail. In finishing the floor, if a wooden float be used instead of a steel trowel, a surface will be obtained that will be slightly granular; it effectively will prevent slipping, and yet will not be difficult to clean. No heavy loads should be permitted on the floor for at least two or three weeks after it is finished.

It always pays to have good clean aggregates, to mix the concrete thoroughly, to let it cure slowly, and to put in the best of workmanship on the whole job.

Test for Good Oil

There are a dozen different tractor oils on the market and all of them are represented to be the best. What one should I choose, how can I tell which one will be the best for my outfit?

Answer: Tractor lubrication is a very important part of its operation, and one is right in being careful what he chooses in the way of a lubricant. Carelessness in this matter may result in serious damage to the machine.

Fortunately most of the oil manufacturers are reliable, and the oils they sell are good. Most of them make a great number of different kinds and grades of oil, and the difficulty comes in choosing the best from this variety. A good plan is to find out from the manufacturer of the tractor the kinds of oil that he recommends for his machine. He knows which are good and which are not, then buy the one that is the most readily obtainable. It may be that a little experimenting on your part with different kinds of oil will point to one kind of oil that gives the

best results. If so, stick to that kind of oil.

A good oil must have several essential qualities. It must be reasonable in price—tho the price is no index of quality; it must be capable of forming and maintaining a thin film between the bearing surfaces; it must be capable of withstanding heat—this being a variable quality, depending upon the location of the surface to be lubricated, whether in a cylinder, on a journal, between meshed gears, and so on; it should not congeal in cold weather, nor thin out in hot weather. The following method of testing oil for quality and viscosity is quoted from a manufacturer's instruction book:

"Place a small piece of glass at an angle of 60 degrees and drop an equal quantity of each lubricant on the upper edge so it flows down over the glass. The one that flows quickest has the least viscosity. The one that flows slowest has the greatest viscosity. At the same time, if there are any gums, rosins or other viscosity producing elements in the oil, they will be apparent by the color of the oil streak on the glass, as these adulterants deposit themselves in the form of sediment. Another way of testing for artificial viscosity producing elements is to drop some of the lubricant on a clean white cloth. A sediment deposit indicates an adulterant. A good quality of lubricant will not break down, when rubbed between the finger tips, as quickly as poor oil."

Cylinder Trouble

I have a small tractor with a four cylinder engine that has a little knock. From what I can gather, it is in one of the connecting rod bearings. Will you please tell me whether I can repair this myself, or should I get a regular expert to fix it?

Answer: To get at the trouble, remove the hand-hole plate on the crank case; then carefully turn the crank shaft over, trying each connecting rod to locate the knock by shaking it back and forth. Sometimes a piece of board, or iron, used as a lever under the throw of the crank, will aid in detecting a loose bearing which otherwise would not be noted. However, use a little judgment—a bearing must have a little play, or it would heat and melt. When the loose bearing is found, remove the connecting rod cap, and take out a shim or liner from both sides of the bearing. These liners are usually variable in thickness, and it may be necessary to do considerable removing and replacing before the right adjustment is found. After the bearing is tightened, watch its operation pretty closely for a while to see that it does not heat unduly.

To Remove Carbon

Our tractor has been in pretty steady use for two seasons on heavy work, and we never have given the cylinders a good cleaning out. Don't you think that with the greasy gasoline we have been using it is best to get out the carbon? Will you kindly give directions for doing it?

Answer: The chances are that your engine will run at least 25 per cent better after a thoro removal of the carbon, if you have not removed it for two years. This should be a part of the general overhauling which you should give the tractor every season.

There are several methods that can be employed in removing the carbon. One is to open up the cylinder by removing the head, and then scraping the cylinder and valve passages clean; this has to be done carefully so as not to get any scale on the valve seats—perhaps it would be a good thing to grind the valves a little at this time. Another method is to take the tractor to an automobile repair shop, and use the oxygen flame for decarbonizing. Perhaps the simplest method, and one that works very well if the carbon deposit be not too heavy, is to mix half a gill of denatured alcohol with a pint of kerosene, and pour a few spoonfuls of this mixture into the cylinders while they are still warm from running. Turn the engine over a few times with the switch off, and let it stand over night. The carbon will be so loosened that it will be blown out at the exhaust.

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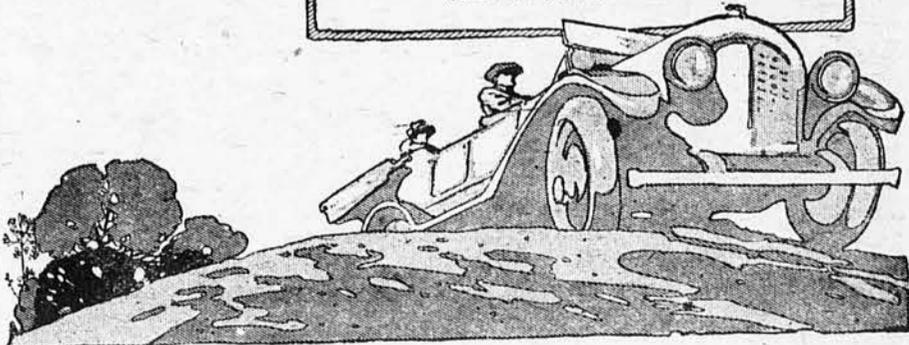
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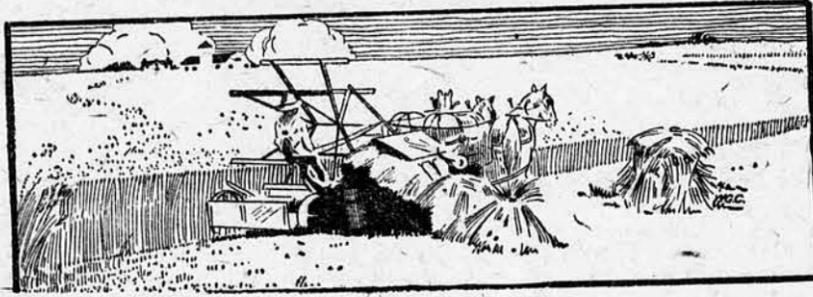
MUTUAL OIL COMPANY

KANSAS CITY, MISSOURI



Kansas Wheat for 1918-19

BY W. M. JARDINE
President Kansas State Agricultural College



AS THE WAR continues, this country will play an increasingly important part. The conflict has reached that stage where its successful prosecution depends upon the united efforts and co-operation of every man, woman, and child in this country. There is work for everyone to do, directly related to the winning of the war. Next to supplying our quota of fighting men, our big job in Kansas has been and will continue to be the supplying of wheat to sustain the allied armies and nations. Our contribution to the world's food supply this year will be between 80 million and 100 million bushels of wheat. Kansas farmers have fulfilled their promise for the harvest of 1918.

The Kansas wheat program for 1918-19 now demands attention. A recent trip to headquarters at Washington revealed the fact that the public eating places of the East have observed the request of the National Food Administration to use no wheat flour until the product of the new wheat is ready. Cornbread, kafir muffins, and bread made from a combination of rye, potato and corn flour, provide the staff of life to a very considerable portion of the citizens of this country. Even with the new crop of wheat estimated at from 850 million to 900 million bushels for the United States, we shall have need yet for careful conservation and continued substitution thruout the year. Reports indicate that Canada's wheat crop will be cut short by recent drouths. We must prepare to plant as large an acreage as last year and to do a better job of it than ever before. Right here is where the emphasis must be laid this year. With labor scarce, we cannot hope to increase greatly the acreage for the state as a whole, but we can use more timely and better methods of preparing the seedbed and thereby insure an increased yield of from 5 to 10 bushels an acre with no extra expense of seed and labor. Early seedbed preparation is the secret.

A Kansas Program

This is the program that I would outline for Kansas farmers in the wheat planting campaign of 1918-19:

1. Plow or list in July or early August every acre on which wheat is to be planted this fall. Give it just enough cultivation thereafter to keep it free from weeds.
2. Plant to wheat as much as possible of the land on which oats were grown this year. Wheat will do better after oats than after wheat.
3. Plant as much wheat as practicable in corn stalk ground, providing it has been kept well tilled and free from weeds.
4. I would urge the farmers of Eastern Kansas to increase the acreage planted to wheat for the following reasons: Eastern Kansas has a greater supply of labor than any other section of the state. Wheat growing fits in well with the cropping system of Eastern Kansas, and is fall-planted, while all other crops are spring-planted. This provides for an economical use of labor. It is a sure crop for Eastern Kansas if well planted, and practically every farmer has on hand an abundant supply of seed of known quality.
5. I would advise the farmers of Western Kansas to plant a normal acreage to wheat and to reduce to the minimum the chance of failure by preparing the seedbed early and well. In this section drouths and hot winds are to be expected. It is wonderful what a little reserve of moisture will do in enabling wheat to withstand cold and drouth. A re-

serve of moisture can be obtained by stirring the ground early so every drop of rain that falls may penetrate the soil and be retained until the growing crop can use it. In extreme Western Kansas I would advise farmers to seed wheat only on land that can be put in first class shape for planting. In the event that some of the acreage in row crops such as kafir, milo, feterita, and even corn, falls to mature a crop, such land would be in fit condition to plant to wheat, providing it has not been allowed to grow up in weeds. We must remember that labor is going to be scarce in Western Kansas, both for planting this fall and harvesting next summer; also, many farmers will have to buy seed wheat at from \$2.50 to \$3 a bushel laid down on the farms.

Wheat is not as sure a crop as the sorghums, such as kafir, milo, feterita and cane, nor will it make farmers more money than the sorghums. The sorghum grains now are used in large quantities for making substitute flours. They make excellent feed for livestock, fed either dry or as silage. We desire to have a large acreage planted to sorghums in Kansas next spring. A large acreage of Western Kansas land should therefore be reserved for the sorghums.

All Pull Together

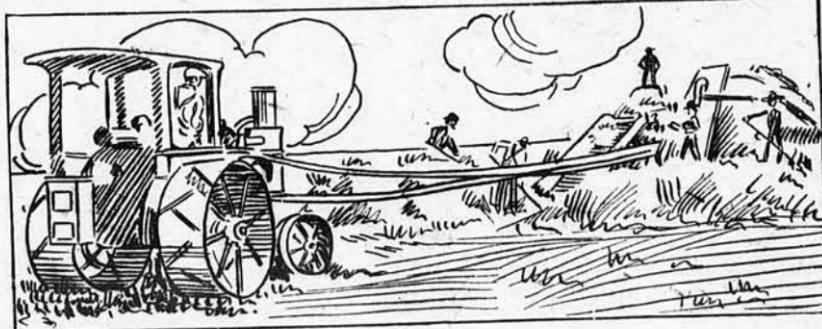
Of the 9,600,000 acres planted to wheat in Kansas last fall, 6 1/2 million acres yielded a crop. The loss of 3 million acres was due to winter-killing and drouth. The year preceding, 5 million acres were lost from practically the same causes. Yet in the counties which lost most heavily these two seasons, there were farmers who had a good crop. Why? Because they prepared their ground early and thoroly. This year we must endeavor to plant as large an acreage as last year, but we must endeavor to harvest a larger per cent of the acreage planted by means of early and thoro seedbed preparation. That early seedbed preparation will result in increased yields and insure against failure, is common information with farmers. I am advancing nothing new. I desire to call attention to what they already know. A 100-million-bushel wheat crop for Kansas next summer will be the biggest contribution that we who stay at home can make towards the winning of the war. Let us all pull together for such a crop by means of early and thoro seedbed preparation.

Money for Tractors

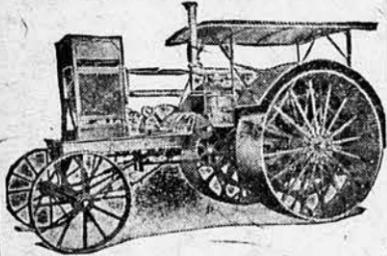
Federal Reserve banks are to rediscount notes secured by farm tractors. Instructions have been issued by the Federal Reserve Board to all Federal Reserve banks authorizing them to rediscount tractor paper presented by any member bank, provided it has maturity not exceeding six months and the tractors are purchased for agricultural purposes.

This action of the Federal Reserve Board means that notes given for farm tractors will be treated in the same manner as other agricultural paper, thus making it easier for farmers to obtain tractors when needed.

When the war is over there will be only two kinds of men left—the men who did and the men who didn't.



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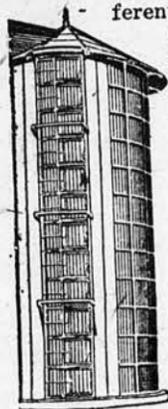
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Why the Big Show at Salina

A Chance to Prove the Tractor's Value in the Nation's Winter Wheat Belt



THE CHIEF reason why the greatest of all national tractor demonstrations will be held at Salina, July 29 to August 3 is because the leading business men of Salina asked for it, and convinced the manufacturers that their location was the ideal one.

But there are other reasons also which led to the selection of Salina. The metropolis of Northwestern Kansas is the center of the great hard winter wheat belt in which are annually planted about 18 million acres. This is the most promising territory in the world today for the increase of wheat production, that important food stuff which has been shown under present war conditions to be more vitally necessary than we had supposed. The production in this great area is only about one-fourth of what it should be. The average acre yield on the amount of land harvested is about 12 bushels an acre and if we add the acreage plowed up every spring the average yield falls below 10 bushels an acre on the amount of land seeded every fall.

That the yield can be quadrupled has been shown by repeated tests at the different experiment stations. At the Kansas State Experiment station at Manhattan tests over a number of years show that deep and early plowing has produced an average yield of nearly 40 bushels to the acre. This means heavy work for the horse in July, a month of high temperatures, and a time when there is considerable other work to do; laying by the corn, prairie haying, cutting alfalfa for the third time, not to mention threshing, oats harvest, and several other little jobs.

Better Farming Methods

It is hoped by many that the Salina demonstration will be an advance toward better methods with winter wheat culture. In a sense the war can be won practically at Salina during the week of July 29 to August 3. The "powers that be" who selected Salina for the only national demonstration of tractors this year had this in mind. They felt that a drive by an army of tractors in the very center of the great hard winter wheat district would be a great stimulant for an increased wheat production.

These far-seeing men also had other ideas of Salina as a center for such a show. Salina is on the edge of what is known as the short grass country, the area where the absence of rainfall is often regretted. As a matter of fact the rainfall in the great plains district to the west and southwest of Salina is

sufficient for any crop in the temperate zone, and comes at the favorable time of year, being heaviest in June. Another favorable feature is that the rains come in the shape of heavy thunder storms, wetting the ground down to a considerable depth, the effect lasting longer than if the rains were divided up into a number of small ones.

But there is a bad side to the story. The winds in this territory average much higher in velocity than elsewhere in the crop growing sections of the United States and the sunshine of the summer is at the rate of 60 to 70 per cent of the daylight hours, while in Ohio for instance, about one-half of the time the sun is covered by clouds. This results in an evaporation in the plains country of 45 to 60 inches a year while Ohio has an evaporation of only 25 inches a year. Many of the farmers in the western two-thirds of Kansas and the neighboring states came from Ohio and other Eastern states years ago. They are good farmers but the Eastern methods that they had learned so well have not worked out in this country, that is, on all years, and just here is where the "rub comes in." If there were no "good" years in the Mid-West, years when the rainfall and climate is similar to the Eastern states the farmers would get out of their minds the idea that the country will change as more land is cultivated and trees are grown, and successful agriculture in this territory would advance more rapidly. But in one year out of about every three Eastern methods prevail, and these are the years upon which many farmers base their farm program. The better type of farmers of this area plan for the poorer years, fight the drying winds and the excessive sunshine, and hold the rainfall for their crops, and in doing this they find the tractor the best solution for their problems. Deep plowing, rapid disking, fast harvesting, and thorough root bed preparation, are the factors of their success and are more easily obtainable with the tractor than with other type of power.

Labor Shortage Is Acute

Again the shortage of labor is more acute in the Mid-West, from Salina south, west and north. In this area towns are small, the farms are large, and most of the people are intensely active in agriculture; and, too, the young men from the farms were healthier and the draft has taken larger quotas. Something must be done here if farm production is to go on, and again the tractor is the answer. One

DISC Before You Plow

Thousands of progressive farmers have proved on their own farms that bigger crops result if the binder is followed by the disc harrow as soon after cutting as possible. Discing before plowing forms a surface mulch that holds moisture until you are ready to plow. Then when the land is turned, the pulverized soil prevents air spaces at the bottom of the furrow.



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It has a valuable feature which you will not find on other disc harrows—grease enters the bearings from the bottom. Trying to force grease through top of bearing is wrong, because the weight of the harrow itself tends to close the outlet of the grease tube. You know what dry bearings mean.

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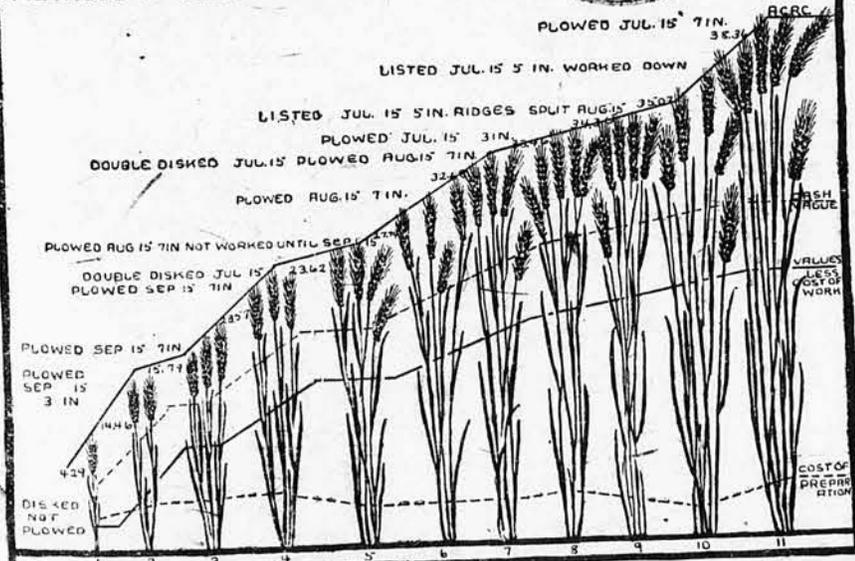
Burn Oil Device Co., Center, N. D., Peoria, Ill. Sept. 6, '17.

Gentlemen:—Enclosed find check in full for ten devices. I can say for your Burn Oil Device that it does more than you claim. I make 25 miles per gallon of cheap kerosene. Yours truly, N. O. Nelson. P. S. I am waiting for my contract for Oliver and Martin Counties; have sold 20 devices without asking anyone to buy from me.

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Advertisement for a watch, featuring a pocket watch illustration and text: '\$250 - A - MONTH! ANY WATCH YOU WANT. This month's Bulletin smashes the terms—boosts the quality, and lowers the price. Our confidential bed-rock prices will surprise you. No security—no interest. We trust you. SENT ON APPROVAL. You do not risk a penny. Your selection will be sent you on 30 days Free Trial. Every watch Guaranteed. A new deal for square people. Write now for special offer. A postal will do. HARRIS-BOAR CO., DEPT. 601, KANSAS CITY, MO.

Emporia Business College advertisement: 'The School That Gets Results.' Clean moral surroundings. Everything modern. Pleasant rooms. Living expenses low. May enroll for a trial month. No solicitors. Free catalog. C. D. LONG, EMPORIA, KAN., BOX M.

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LEARN TELEGRAPHY advertisement: Young men and women attend on credit. A practical school with railroad wires. Owned and operated by the A. T. & S. E. By. EARN FROM \$75 to \$165 PER MONTH. Write for catalog. SANTA FE TELEGRAPH SCHOOL, 505 Kansas Avenue, Topeka, Kan.

10 Patriotic Cards Free advertisement: We will send 10 lovely colored post cards free to all who send us 10c for a 3-mo. subscription to the Household Magazine. Address THE HOUSEHOLD, Dept. 10-E, TOPEKA, KAN.



Service Flag The Flag of Distinction

Every Home, Club, Sunday School, Church or Business House furnishing a boy for Uncle Sam should honor him by displaying the Service Flag officially adopted by the United States Government. The flags are 12x18 inches in size. Sewed cotton flag cloth—cotton heading and teeth grommets.

For the next few days we will send one of these flags free and postpaid for one 3-year subscription to the Farmers Mail and Breeze at \$2.00. Orders filled with flags with a single star. If more than one star is wanted add 10 cents for each extra star.

Farmers Mail and Breeze, Topeka, Ks. Gentlemen—Enclosed, find \$2.00 for which send Farmers Mail and Breeze three years, with a service flag free as premium.

Name..... Address.....

With the Home Makers

Serve Ice Cream With Your Meals in Hot Weather

BY LEONA SMITH DOBSON

JANE BROWN was closely inspecting freezers in the hardware store the other day, when I entered and we chatted while waiting for a clerk. "Yes I must have a new ice cream freezer," she said. "My old one will do no longer and it remains but to decide upon a style to take its place. Here is one like our old one, but I never have liked it; there's too much wood about it, and wood can't be washed so it is really clean. I want a freezer the inside parts of which are made entirely of metal.

"Here is one that meets my requirements, and I am hesitating between it and this new vacuum freezer which requires no turning to freeze the cream," she continued. "You simply pour the ice cream mixture into the inner can, pack your ice and salt about it and stir it well at three 15-minute intervals. It certainly freezes good cream. There is quite a difference in the prices of the two freezers, the vacuum freezer being nearly double in price, but I believe it will save time and labor enough to justify the difference."

"But one can buy good cream cheaply," I began. "It is no more work to prepare ice cream than any other dessert—in fact I would much rather make it for then the boys expect to help. All I need do is prepare the cream, and they pack and freeze it. And if I make pies, which are unwholesome and unpatriotic, I must do all the work alone. A mixture of milk, eggs, and sugar is nourishing and wholesome instead of injurious. But, best of all, I can prepare my cream the day before, say on Saturday evening, and the boys will freeze it while I make a simple cake. Then the freezer will be packed well and I have a delicious dessert all ready for Sunday dinner and supper, too. For farmers who have their own milk and eggs, nothing is more economical than ice cream."

Her arguments were so convincing that I remarked, "Well, I believe you are right. I shall have to beg for some of your recipes for frozen dainties."

"I've only one," she laughed, "but the folks think we have many kinds of cream. I always use this recipe: Mix 2 cups of sugar and 2 tablespoons of cornstarch thoroughly, then add almost 3 quarts of milk and 1 quart of cream and 3 well beaten eggs. Bring all to the boiling point, stirring constantly. Remove from the fire, add flavoring, and let cool before putting in the freezer. By varying the flavoring, one has an endless variety. Occasionally I use fruit—peaches, strawberries or other fruit—crushed, rubbed thru a sieve and sweetened for part of the milk. A quart of the fruit to the gallon is a good proportion."

Jam Can be Made With Sirup

Raspberry jam is being made by English cooks using corn sirup to replace one-third, by weight, of the amount of sugar ordinarily used. This is the recipe used: Pick over 3 pounds of raspberries. Mash a few in the bottom of a preserving kettle, using a wooden masher and continue until all the fruit has been mashed. Heat slowly to the boiling point and add gradually 2 pounds of heated sugar and 1 pound of corn sirup. Cook slowly for about 45 minutes or until the mixture is thick. Pack into jelly glasses which have been washed clean and heated in boiling water for about 15 minutes.

Kill the Household Pests

The following are some tested methods by which I rid my home of household pests such as moths, ants, cockroaches and the like:

Moth Killer—Saturate a cloth with formaldehyde; place the cloth in the closet and close it up tightly for 12 hours. The fumes will kill moths as well as their eggs, also germs of any kind. Another remedy I have tried is perfumed moth bags, made as follows: 1/2 ounce each of cloves, nutmeg, cardamom and 3 ounces of away seeds, cinnamon and 3 ounces of orris root. Have these in fine powder and place in small bags. These little bags placed among your clothing will impart a pleasant odor and keep moths out.

Red Ants—Pour liquid corrosive sublimate on little pieces of cotton batting, lay it where the ants travel and they will leave instantly. Camphor gum laid upon the cupboard shelves will also keep out red ants.

For Black Ants—Sprinkle common salt freely where the ants gather. Sprigs of arbor vitae scattered around the shelves where food and sugar are kept will also drive away black ants.

To Drive away Flies—Mix 5 cents' worth of essence of lavender with the same quantity of water. Use a glass atomizer to spray it around the rooms. The flies will leave quickly. Another simple remedy is turpentine. If a piece of flannel is saturated in turpentine, kept moist and hung up in a room, the flies will disappear.

To Kill Cockroaches—Cockroaches are killed at once by the poisonous water exhaled from fresh cucumber peelings scattered about the floor and several repetitions will exterminate them. Another remedy is calomel, borax and flour mixed together, one part calomel to three parts borax, and three parts flour. This will rid a house of roaches and waterbugs.

We should not forget the everlasting bedbug. The simplest and most effective remedy I have found for them is gasoline. Take a warm day, put out all fires, and saturate the walls, floors and beds with gasoline. Then go out doors and let it evaporate. Spirits of turpentine applied freely with a brush will also do away with bedbugs.

A sure method of driving away rats and mice from the house is to stop their holes with cement, first putting in their runways cayenne pepper or wet potash, or leave a few of the holes open but treat them in this way. Newton, Kan. May Peintner.

The Prize List Will Interest All

BY MRS. DORA L. THOMPSON Jefferson County

The premium list of the Kansas Free Fair is as interesting reading as the latest mail order catalog. A program is outlined for the week beginning Monday, September 9, and closing Saturday, September 14. On all but the first and last days there will be demonstrations by some members of the Kansas Mother and Daughter Canning clubs. Premiums are offered for art work, crochet, knitting, embroidery, tatting, quilts, pillows, army and navy knitting, sewing and a miscellaneous line. Prizes are also offered for cakes, pies, cookies and gingerbread, preserves, pickles, relishes, canned fruits and canned vegetables and jellies. The jelly must be placed in half pint jelly glasses, but other canned goods are to be in pint glass jars. For each pint glass jar of canned fruit or vegetable or preserve or relish two prizes are offered, a first prize of \$1 and a second prize of 75 cents.

Many farm women will be interested in garden and fruit prizes; especially the \$10 prize for the best war

garden display, a part of which may be canned vegetables.

Special prizes are offered to clubs and to club members of Kansas boys' and girls' clubs and Mother-Daughter Canning clubs. Premiums are offered for war breads, corn, garden products, garments, pigs, chickens, grain, sorghums and canned products. For the best war bread collection there is a first prize offer of \$5, a second of \$4, and others of \$3, \$2 and \$1. For single jar exhibits of canned products—in either quart or pint glass jars there are prize offers of \$1 for best, 75 cents for second and 50 cents for third. The club making the best exhibit of 100 quart cans of liquid canned goods or 200 pints will receive a first prize of \$50. There are other prizes ranging from \$25 to \$45.

In the garden club list prizes are offered for a dozen tomatoes or potatoes, a half dozen onions, carrots, beets, single pumpkins, squash and cabbage.

In a home made products department prizes are offered for home dried fruits, vegetables, home cured herbs, home made dyes, home cured meats, home canned meats, home made soaps, home made hominy, lard, yeast, cottage cheese and coffee substitute.

Hints for the Cook

A teaspoon of sugar added to fresh peas or green beans, while cooking, will give a most delicious flavor, making them tender and delicate. Salt them as usual.

To prepare mashed potatoes, drain the water from them let them steam for several moments, then mash thoroughly, adding hot milk and beating as for cake dough, until they become light and fluffy. They are easily digested this way, serve twice as far, and have none of that pasty stiffness that ordinary mashed potatoes have a few minutes after they are mashed. These are particularly good for children, since potatoes made this way do not need any rich gravy to make them palatable.

When eggs are plentiful, add two yolks to the mashed potatoes, put in a casserole and brown in the oven. The mixture will rise and become very light. Dot with bits of butter and sprinkle with paprika, and you will find a delightfully new flavor to the old potato.

When baking beans the seasonings will go further if the molasses and mustard and salt are dissolved in the boiling water and poured into the baking dish over the beans and the salt pork. Beans seasoned this way should be baked in a very slow oven for 5 hours. Majorie Conklin Kumlner.

Do Your Beets Fade?

Every one who has tasted our canned beets asks our secret for preserving the color. As soon as the beets are boiled tender they are peeled and sliced into a can which has been placed in a kettle of cold water and gradually heated. Have ready in another vessel the desired amount of vinegar and water half and half, with a cup of sugar for a gallon of beets. Pour it hot over the beets and seal. If the beets are not allowed to cool before being put into the jars, and the jars are placed in paper bags, they will retain their color perfectly. Meeker, Okla. S. C. T.

Kansas Map to Readers

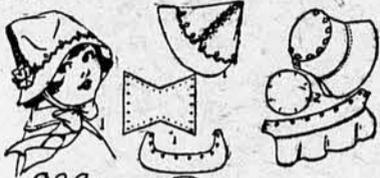
We have arranged to furnish readers of Farmers Mail and Breeze with a Big Wall Map of Kansas. This large map gives you the area in square miles, and the population of each county; also name of the county seat of each county; it shows the location of all the towns, cities, railroads, automobile roads, river and interurban electric lines, and gives a list of all the principal cities of the United States, with their population. For a short time only we will give one of these big wall maps of Kansas free and postpaid to all who send \$1.00 to pay for a one-year new or renewal subscription to Farmers Mail and Breeze. Every citizen of Kansas should have one of these instructive wall maps. Address Farmers Mail and Breeze, Topeka, Kansas.—Advertisement.

Soak wilted vegetables in cold water until they are crisp and fresh.

Little Girls Like These Caps

Two quaint little caps for the small girl which are quite out of the ordinary are illustrated in 8881. Sizes 2 and 4 years.

Ladies' apron 8863 is cut in one piece and two narrow straps hold it in place. Sizes 36, 40 and 44 inches bust measure.



The overblouse of dress 8860 is cut out at the front, and the waist shows thru the opening. The skirt is slightly gathered all around the waistline. Sizes 36, 38, 40, 42, and 44 inches bust measure. These patterns may be ordered from the Pattern Department of the Farmers Mail and Breeze, Topeka, Kan. Price 10 cents each. State size and number of pattern when ordering.

Summer Diet for a Child

Three meals a day. No food between meals. Water several times a day. Out of doors as much as possible. All vegetables should be thoroly cooked and mashed. This is what a child of 2 to 3 years will thrive on. It is wholesome, nourishing, safe:

Breakfast—7:30 A. M.

1. The juice of 1 sweet orange or pulp of 6 stewed prunes and apple sauce.
2. Either a well-cooked cereal, cornmeal, Pettijohn, oatmeal, rice, cracked wheat, wheatena, sweetened (1/2 to 1 teaspoon of sugar), or saffed, with milk, or soft-boiled or poached egg with stale bread or toast.
3. Glass of warmed milk.

Dinner—12 to 1 P. M.

1. Choice of broth or soup, chicken, beef or mutton, thickened with peas or rice; or, white meat of chicken, chop, rare roast beef, rare steak, broiled fish; or, Asparagus, carrots, string beans, peas, boiled or baked potato, spinach.
2. Glass of warmed milk.
3. Dessert: Baked apple, plain bread pudding, cornstarch custard, junket, stewed prunes, plain rice pudding.

Supper—5 to 6 P. M.

1. Well-cooked cereal with milk or cup of cocoa.
2. Bread and butter.
3. Stewed or fresh fruit.

To Make Fruit Canning Easy

Mary Ellen's big screened-in back porch was very cool and pleasant when I arrived one morning recently, altho the sun was rather high and blistery on the way over. With a large rocker sitting there handy and Mary Ellen with a big basket of cherries beside her, things looked mighty inviting.

"Thinks I to myself, 'Cherries and extra hands at the same time!' So when Mary Ellen was getting ready to begin work with the cherries, I said, 'Bring me an apron and I will help, too. It takes so long to seed cherries.'

"Mary Ellen just laughed. 'It won't take us long this morning,' she said. 'I've spent hours and hours seeding cherries and now I wonder why I ever did it. I was in the hardware store a few weeks ago and a clerk called my attention to this. (She stepped into the pantry and brought out what looked like a food chopper, and fastened it to the table as she spoke.) As soon as I saw it I knew it was just what I needed,

"You would be surprised to see how fast we put those cherries thru. I had seen cherry seeders before, of course, but now I know one must keep her eyes open when buying to get the right kind. Mary Ellen says to be sure it is heavily retinned so it will not rust, and that it is built so the juice of the cherries will not run back and down onto the table and floor.

"While I was there in the hardware store, I invested in several little time-savers,' Mary Ellen told me as I examined the cherry seeder.

"Here is my grape and raisin seeder. And it does the work, too. No more rubbing pulp thru a colander. We are very fond of grape marmalade but it has always been such a task to prepare the grapes. Now it will be very little trouble for this seeder will seed the grapes at the rate of a pound a minute.

"Here is the old apple parer which I have used for several years. It pares, cores and slices the apples very satisfactorily all at one operation.

"When I do not wish my apples sliced I shall use this new apple and peach peeler. It pares the soft fruit as well as the firm, for the knife is rotary while the fruit is held stationary. This peeler is a little more expensive than the others, but one is always so busy when peaches must be canned that it is cheap at any price.

"These three devices cost me only \$5. Just think of the time and labor they will save. Now with my steam pressure outfit, I am quite well equipped for canning. I shall conserve my strength along with the fruit."—Leona Smith Dobson.

Easy Cooking for Threshers

I always begin to prepare for threshers weeks before they arrive by canning food from the garden. Then several days before threshing begins I go over the dishes that are not used every day and wash what are needed. I scour the silverware and have plenty of tea towels on hand.

I bake my bread two days before and bake pie crust on the inverted tins at the same time. A good filling can be made with cornstarch and egg yolks the same as pudding, using the whites for the tops. Chocolate filling is also good. When I desire fruit fillings, I mash the fruit very fine, sweeten and flavor it and cover with a little sweetened thick cream. I do not fill the pies until just before serving.

I prepare baked chicken by boiling it whole until tender, then browning it quickly. I do this early in the morning so the stove will be empty for vegetables. I thicken some of the broth for gravy and make noodles or dumplings in part of it. If the dumplings are cooked in a covered pot in the oven, they will not fall and be soggy.

If meat or chicken is to be fried, I put the grease in the dripping pan and when it is hot, put in the meat or chicken seasoned and fry it in the oven.

The bread, cakes and pie shells are ready, so the first thing I do in the morning is to fill the pie shells and set them away to cook. Then I clean the chickens, get out a stew pan for each vegetable, pare the potatoes, open what canned vegetables I wish to use and put them in kettles on the back of the stove until time to cook them. Next I make the slaw and set it in a cool place, then open the fruit cans and pickles.

I cover the table with oilcloth and put on the plates, forks, knives and spoons with two sets of pepper and salt holders. I put the vegetables on to cook about 10:30 and make the coffee while they are cooking. The bread is cut ready to fill the plate and the dishes and drinking cups kept filled.

Winfield, Kaa.

Give a Towel Tea

If your church or club wishes to earn money for the war or some special purpose, give a towel tea. Purchase a "piece" of best quality linen huckaback toweling at wholesale price. Divide it into suitable lengths, give it out in pairs to the women and girls and ask them to earn the cost of the material in some way and to make it up into attractive towels. Display the results at a certain date at the home of one of the members, and invite the public to inspect and to buy, taking a silver

offering at the door to cover the cost of simple refreshments of tea and sandwiches.

Mirandy on Babies

I reckon dat babies is de curiousest nation of people dere is, an' de deceit-fulest. Yassum, dere ain't no guessin' a baby.

But de most peculiar peculiarity 'bout a baby is de effect dat hit has on de folks dat hit associates wid. Hit makes 'em, or ruins 'em. Hit always makes me laugh when I hears folks talk 'bout de way dey is gwine to mold deir chillun's characters. Hit's de chillun dat does de moldin' of de par-ients' character, 'an a little, teenty, weenty baby can change a grown man or woman mo' in two days dan a grown man or woman can change a baby in 20 years.

Yassum, you can always tell folks dat's got a baby. Dey's des got a chastened look, an' hit's sort of glorified look, too, lak dem early Christian martyrs whut had done suffered in well-doin', and walkin' de colic.

Yassum, I done heard somebody say oncet dat a baby, was a well-spring of joy in de house. I ain't a 'sputin dat, but one sholy is a steady job, becaze it keeps you on de jump from mawnin' till night, an' from night till mawnin', and' de funniest part of hit all is dat you des loves dat little bunch of trials and tribulations dat somehow had got you' heart des squeezed up in hit's little fat fists, so that no matter how tired an' worn you is wid loss of sleep an' rest, you don't never think 'bout quittin' on de job.

Yassum, babies sholy am a gran' institution, an' I don't know whut we'd do widout 'em. Dey keeps us po' an' humble, and' makes us proud an' braggy. Dey wuks us to death, an' we are glad to slave our fingers to de bone for' em. We wonder whut odder folks sees in deir runty, knock-kneed, measly offspring dat makes 'em think dey is worth raisin', an' when we looks at our own, dey looks as beautiful, an' wonderful, as sheriffs from de sky.

Yassum, nobody don't know whut happiness is ontel dey is held deir own baby on deir breast. An' nobody don't know whut sorrow is ontel dey has turned away from de graveyard an' left deir little baby layin' out dere alone, cold in de snow.

Me, I's knowed both.—Good House-keeping.



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Skims Clean At Any Speed

The Sharples Separator Co. West Chester Pa.

SHARPLES

"I Would Not Part with it for \$10,000"

So writes an enthusiastic, grateful customer. In like manner testify over 100,000 people who have worn it. Conserve your body and life first.

The Natural Body Brace

Overcomes WEAKNESS and ORGANIC AILMENTS of WOMEN AND MEN. Develops erect, graceful figure.

Brings restful relief, comfort, ability to do things, health and strength.

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Does away with the strain and pain of standing and walking; replaces and supports misplaced internal organs; reduces enlarged abdomen; straightens and strengthens the back; corrects stooping shoulders; develops lungs, chest and bust; relieves backache, curvatures, nervousness, ruptures, constipation. Comfortable and easy to wear.

Keep Yourself Fit Write today for illustrated booklet, measurement blank, etc., and read our very liberal proposition. HOWARD C. RASH, Pres. Natural Body Brace Co. 22 Rash Building SALINA, KANSAS

If you visit the great National Tractor Demonstration in Salina July 29 to August 3, step into our office on first floor adjoining principal hotel and inspect the Natural Body Brace.

Only \$2 DOWN! ONE YEAR TO PAY

\$38 Buys the New Butterfly Junior No. 24. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 8 shown here.

Earns its own cost and 125,000 new uses in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

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DAISY FLY KILLER placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed effective. Sold by dealers, or 6 sent by express prepaid for \$1.

HAROLD SOMERS, 150 DeKalb Ave., Brooklyn, N. Y.

American-British-French FLAGS FREE

These American, British and French flags are almost two feet long; mounted on staffs and are just what you need to decorate your home, church, club, school or lodge room. Flags are going up in price, and you should take advantage of the following extraordinary liberal offer.

Special 10 Day Free Offer

We will send one set of three of these beautiful flags free and postpaid to all who send us only \$1.00 to pay for a yearly subscription to Farmers Mail and Breeze. We will accept new, renewal or extension subscriptions. This offer is good for ten days only.

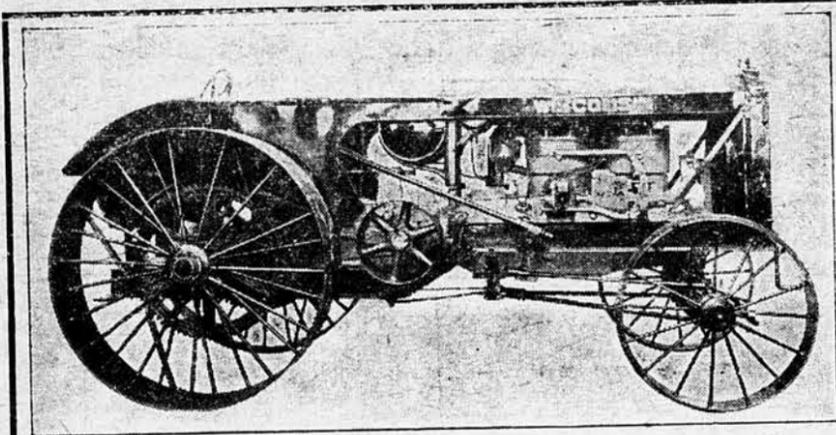
The Farmers Mail and Breeze Topeka, Kansas

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as between POSTUM and other table beverages is in favor of the **Wholesome, Healthful** drink.

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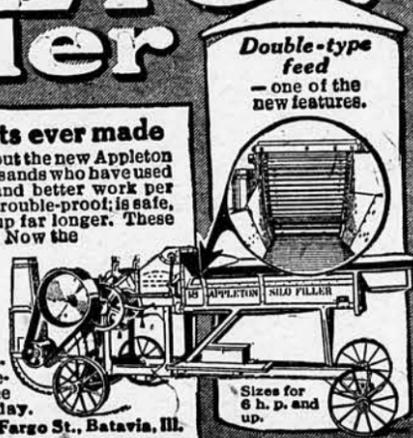
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Here is a true guide to grocery economy that should be in every home. Choice foodstuffs of every sort at remarkably low prices are described and listed. Every family is vitally interested in decreasing the cost of living. This is the way to do it. Direct to you is the Wilson plan. Get the Free Book.



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In this circle are a number of letters which, properly placed, will spell the name of a Beautiful Black Pony. What is this Pony's Name? It will pay you to work it out. Send your answer quickly and I will help you get this beautiful pony—2000 FREE VOTES toward the pony and other valuable gifts.

SEND NO MONEY, JUST YOUR NAME AND ADDRESS

You will be the proudest one in your neighborhood when you own a dandy Shetland Pony. Some boy or girl is going to be very happy when they get this Beautiful Pony. WHY NOT YOU?

THE PONY MAN, Dept. 284, Des Moines, Iowa

For Our Young Readers

They've Learned So Many Things About the War

A KEENER LOVE of country which will not end with the war is being inspired in the hearts and minds of boys and girls all over the United States. It isn't any wonder that these youthful patriots have a real understanding of conditions. Not only in their homes are they being trained for better service but thruout the year the schools have been an avenue thru which information has come to them by means of practical lessons.

The boys and girls have learned the need of better and more intensive farming; they know the purpose of the Red Cross society, Liberty Loans and War Saving Stamps and have contributed to all three of these funds, and this summer they are putting into actual practice on the farm many of the lessons which they learned at school.

A better knowledge of geography has been gained, too. France no longer seems a distant country; England's cause is closely hitched up to Uncle Sam's, and they're a great many things which the boys and girls have learned about Germany, but let them speak for themselves.

Tested Seed Means Less Waste

[Prize Letter.]

I am going to do my best to tell you about the contest we had at our school. Blanks were sent to our school to give to all the people of the district to fill out, telling how much seed, how many animals, fruit trees, and other things, they had.

The pupils were also asked to get samples of the seed people had to sell and plant. We were to send samples of each to Manhattan to be tested and to test a sample of each ourselves. The teacher appointed certain ones to get the seeds and to have the people fill out the blanks. Then we placed each sample separately in small sacks and sent them to Manhattan to be tested.

The boys of our school made a hotbed near the schoolhouse and we planted a sample of each kind of seeds for our test.

In about three weeks the teacher received \$20 for the first prize. We surely were surprised, for altho we had worked hard we hadn't expected to win a prize. Our school had 28 pupils.

Glen Elder, Kan.

Learning to Save is Good Training

[Prize Letter.]

We had a bank at our school and the money which we would otherwise have spent for candy, marbles and dolls, we put into the bank. The amount grew and grew and grew until we had \$11. That went to the Red Cross at Christmas time. We started again and saved enough for a beautiful silk flag. With the next amount of money we saved we made all of the pupils in our room members of the Junior Red Cross. At the end of the term we bought two saving stamp books; one

when due was to go to the South school and the other to the fourth grade.

Then, too, we made three or four afghans. At the beginning of the term we were organized like soldiers. We had a captain and two officers. We showed the other rooms that even if we could not fight on the battle fields of France we could help here at home.

Paola, Kan. Winifred Hodges.

Every Hog Worth a Bullet

A professor from the Kansas College of Agriculture at Manhattan gave a lecture on hog cholera at our school. He used sliding pictures to explain it all. He told how to take care of our hogs and how to find out if they had the disease and how to keep them from taking it.

Another lecturer told about different kinds of plants and described potatoes, millet, rye, barley and wheat. He also told how to spread manure.

White City, Kan. Homer Coons.

All About France and Germany

A man from France who is a Y. M. C. A. worker visited our school during the last year. He told us all about the trenches, about what the Germans do, the big guns, the ships and the ocean. It was very interesting. Our school has 80 pupils. We raised \$20 for the Red Cross.

Yates Center, Kan. George Bell.

You'll Need Your Geography

If you'll get out your geography you'll find that you can very easily fill in the gaps in this little story. Send your reply to the Puzzle Editor, Farmers Mail and Breeze, Topeka, Kan. Packages of postcards will be mailed the first five boys and girls sending correct answers.

Two girls, (city in Italy and river in Siberia), were visiting at the home of their Uncle (cape in Virginia) and Aunt (cape in Maine). One day they went for a picnic on (city in Illinois). They were accompanied by two girl friends, (cape in Madagascar Island and cape in New Jersey). Aunt (cape in Maine) put them up a nice lunch. They hurried away for a day's fun. They enjoyed the morning gathering nuts and flowers. They had just finished their lunch and were eating (city on Ceylon Island) when they heard a loud noise. Looking back, they saw a (lake in Canada) coming toward them. They jumped up and ran as fast as they could. They ran to the edge of the island and saw a (isle west of England) in a boat, coming toward them, and he took them safely home.

The answer to the puzzle in the July 6 issue is: 1, golden rod; 2, lady slippers; 3, tulips; 4, forget-me-not; 5, bleeding heart. Prize winners are Helen Horst, Mabel Herrington, Charles R. Lathrop, Roy P. Williams, Vangie Jones.



The exciting thing which is about to happen is the distribution of American apples, to every little French orphan of the Toul refuge. These are the children of the famous American Red Cross orphanage—children who were still living on in a district under bombs and shell and gas, until gathered up by Prefet Mirman, when their care was assumed by the American Red Cross. They are undergoing a transformation from utter wretchedness to sturdy, childish happiness.

Money from Dairying

Prices for Farm Butter

THE PRICE received for farm butter usually will not justify the labor required to make the cream into butter. Butter is becoming more plentiful and prices are changing at this season of the year. Farm-made butter is now becoming more plentiful and in some cases sells to grocers for a very low price. It is also becoming more difficult to make and deliver a good grade of butter because of hot weather.

One pound of butterfat in cream when churned will make approximately 1.16 pounds of butter. When butterfat is worth 40 cents a pound at the creamery, the farmer can realize about 46 cents a pound for fat provided he churns the cream and sells his butter for 40 cents. He usually gets only 30 to 35 cents a pound in trade at the grocery store, when butterfat is selling to the creamery for 40 cents. In this case the farmer is losing money by making butter. If he can sell his butter to a regular customer who will pay creamery butter prices, or even prices as high as those paid for butterfat at the creamery, then he may realize a little more money by making butter.

Buttermaking on the average farm is left to the housewife. With her many other hard tasks to do, it is unfair to add to her labors by thrusting this unprofitable labor upon her.

Often the extra money made by making butter will not pay for the time and trouble required. Unless a good price is obtained for the butter, a farmer will be better off if he hauls his cream to the creamery and buys the butter he uses on his own table.

When the Milk Gets Ropy

BY J. H. FRANDBEN

We are milking two cows, one quite fresh and the other having given milk since late last summer. The milk seems all right until it stands a day or so, then it gets stringy or ropy. When boiled this condition doesn't appear. Have tried keeping the milk separate from each cow, but it is all the same. The cows do not act sick in any way. Can you give me any information about this and is the milk fit for use?—Reader.

This trouble undoubtedly is what is known as slimy or ropy milk.

The cause of this condition is supposed to be due to the growth of certain kinds of bacteria. This infection sometimes is quite persistent, remaining in the dairy or barn for long periods of time unless special effort is made to rid the premises of the bacteria. The most practical remedy that can be suggested is to thoroughly wash and sterilize all cans and utensils used for the milk, and to disinfect the barn and dairy room. If the trouble appears in the summer or spring it is quite likely that the cows gather the slimy germs from low marshy places thru which they wade. In such cases the udder should be carefully brushed off before milking. But, if the trouble appears in the winter time it likely can be traced to germs which have gotten access to the barn, perhaps with the hay or other dusty feeds. In such cases it generally is a good plan to milk before any dust is stirred up in the barn.

If the trouble persists, the barn should be thoroughly cleaned out and the floors, ceilings, and mangers disin-

fect. Sweep the ceilings, side walls, partitions, floors entirely free from cobwebs and dust. Remove all accumulations of filth, and spray with a disinfectant made by using about 6 ounces of carbolic acid to a gallon of water. After this is dried, put on a good coat of whitewash with about 4 ounces of chloride of lime added to the gallon. The easiest way to apply this is with a spray pump. The milk house should be treated the same way.

The dairy utensils should be thoroughly steamed or left over the stove in boiling water for about a half hour. It is well to remember that a pure water supply is one of the most essential dairy requirements. This treatment should eliminate even the most obstinate infection of this kind.

Caring for the Separator

BY H. A. RUEHE

Most makes of separators will do efficient skimming if they are run and cared for properly. If a separator fails to do good work, it is more often the fault of the operator than the construction of the machine. No matter how well a separator may be constructed, if it is abused by improper usage it will soon fail to do properly the work for which it was designed.

The following suggestions may be of help to separator operators:

Set the separator level on a solid foundation and bolt it down firmly. It is well to have a piece of rubber packing under every leg of the separator to serve as a cushion for absorbing vibration.

See that all bearings are clean and well lubricated. Clean the bearings occasionally with gasoline or kerosene to remove grease that may have become gummy and thus prevent proper lubrication. Use only the best hand-separator oil. Never use common machine oil.

Be sure to turn the separator at the proper speed. Time it with a watch or speed indicator.

In cold weather run about a gallon of warm water thru the bowl to warm it before turning on the milk.

Separate the milk as soon after milking as possible, for the milk is then warm and in good condition to secure a clean separation. No separator will skim cold milk as well as warm milk. The milk should be at least 75 degrees Fahrenheit in temperature.

When thru skimming, flush the bowl with about 2 quarts of the skim milk. In cold weather, warm water may flush the machine more effectively.

Wash the separator every time it is used. Wash all separator parts first with moderately warm water containing washing soda. When all parts are clean, scald with boiling water and place them in a warm oven to dry. Be sure that the oven is not too hot, as it is likely to melt the tin plating from the bowl parts. Leaving the separator unwashed not only causes the bowl parts to deteriorate but also injures the quality of the cream. It is a filthy practice.

When a separator is running, the bowl should spin like a top, with no vibration. If the bowl does vibrate, examine the bearings to see if they are loose or worn.



Capper and Grain-Grading Rules

The same old gang of politicians appears to be doing everything it can to prevent Governor Capper's nomination for United States Senator. Every scheme that clever political "fixers" can devise is being used to defeat him at the primary, August 6. For example, they are now trying to prejudice the wheat growers of Kansas by telling them that Capper is responsible for the unpopular rules governing the grading of wheat in this state, altho they know perfectly well that the federal government has absolute control of grain-grading regulations, and that the same plan is being followed in all Western states, and that

in this, Kansas is not different from any other state. From time to time Governor Capper has appealed to the department at Washington for rules that would be fair to the grain growers and has done his utmost to protect the farmers of Kansas. That is as far as he can go as Governor.

It is not to be believed that the farmers, or the people of Kansas, can be fooled by such a political trick. But these adepts at deception have other schemes at work, and their machinations make it necessary for Governor Capper to rely on every man and every woman who believes in honesty and decency in public affairs to stand by him on August 6.

FORDSON FARM TRACTOR

We will have on exhibition and for sale and immediate delivery, a trainload of

FORDSON FARM TRACTORS

Come to

The National Tractor Demonstration

Salina, Kansas, July 29 to August 3

To make sure of a FORDSON TRACTOR you had better mail a check at once for \$100.

G. L. HUDKINS

Distributor Fordson Tractors

SALINA, KANSAS

See the 4-Drive Tractor Before You Buy

Any time you are pressed to "sign up" for a tractor, the salesman is afraid he will lose your order, if you see the Famous Fitch 4-Drive Tractor.

When you need a horse, you look over all that are for sale before buying. Be fair to yourself—don't buy any tractor until you have investigated them all, and don't fail to see the Famous Fitch 4-Drive Tractor at the Salina Tractor Show. It will be money jingling in your pocket to wait.

The Fitch 4-Drive Tractor

It's not a freak in shape or appearance. It looks and is a real Tractor—built solidly from the ground up.

The Greatest Development among Tractors! Built of steel throughout with power applied to all four wheels. Outpulls any Tractor of equal engine power or weight. No hill too steep. Turning radius, 6 feet 9 inches. Three speeds forward and reverse on belt pulley as well as on wheels. Walks through creeks, mudholes and sand; climbs over stumps, rocks, terraces and ditches; will handle 3 1/4-inch plows, 7 inches deep; less than 8 lbs. ground pressure to square inch.

Does Not Pack the Soil POWER APPLIED ON ALL 4 WHEELS

Double the traction of any 2-drive wheel Tractor of equal weight; front wheels pull the same as the back; no wheel can go dead in mudhole; no lost power pushing dead weight; pulls 10 times its weight (Government Army Test); will do any belt work for less expense.

See It At the Salina Tractor Show

Free Trial on Your Farm

Don't buy before you try. You can arrange to try the 4-Drive Tractor on your own farm FREE. We don't ask you to take our word for the statement that this is the greatest tractor ever built. Prove it to your own satisfaction right on your farm.

EASY TO OPERATE

Clutch, spark and fuel control and brake operate the same as automobile. Any one who can run an automobile can operate a 4-Drive Tractor. Strictly a one-man machine. Will run 24-inch Separator or do any other stationary engine work. 3 speeds on belt pulley.

Get Our FREE TRIAL Circular

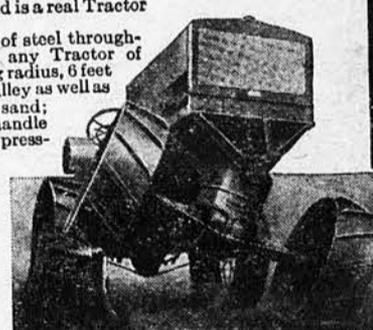
Our Big Broadside Circular tells the whole story of the 4-Drive Tractor. It also tells you everything YOU OUGHT TO KNOW about any tractor before you buy. Read up about Tractors. Get this FREE TRIAL circular. Write for Circular "H" or send the coupon.

K C 4-DRIVE SALES CO. 1933 Main St. Kansas City, Mo.

FREE Fact Coupon

K C 4-DRIVE SALES CO., 1933 Main St., Kansas City, Mo. Send me at once your FREE Tractor Circular "H" explaining the 4-Drive Tractor.

Name _____ City _____ State _____



SUNDAY SCHOOL HELPS

BY SIDNEY W. HOLT

Lesson for July 28. Obeying God. Matt. 4:18-25; James 1:22-27.

Golden Text. If ye love me, ye will keep my commandments. John 14:15.

If obedience is the key which unlocks nearly all worldly doors it is certainly the master-key to the door of a Christian life and in studying the Bible we are not long in doubt whom we are to obey. "Be ye mindful always of His covenant," is the strongest theme in the Old Testament and a commandment that God gave to a thousand generations.

Like an old sailor once said to a young sailing apprentice, "Aboard a man-o'-war, my lad, there's only two things—one's duty; t'other's mutiny," and such are our dealings with God. There is obedience or disobedience. Every command of God has two sides, an order and a promise, a command and a covenant. If we obey the order we receive the promise, but there is never any shifting of the terms, so we must obey instinctively, as soldiers are taught to obey, for true obedience never stops to question the reason back of the command.

At the very beginning of Christ's public ministry when He saw Peter and

Andrew fishing by the Sea of Galilee, He issued His great command, "Follow me," and it is all the same, whether we hear the command of the Father in the Old Testament or the ones of the Son in the New Testament. To be a Christian, is to obey God, no matter how we feel. Yet obedience brings love and love brings a double desire for obedience.

Saying yes to Christ brings us our greatest success, for there is nothing greater than to do the will of God and if we do this will of the Father we have achieved heights that at first seem unbelievable to our questioning minds. If on the other hand we are afraid to obey God lest we encounter some difficult task, we lose the sweetest thing in all the world for a trusting persevering obedience leads us to a greater revelation of the wider horizon of the infinite love.

Not only are we taught obedience to God but we are given rather definite instruction concerning our associates. As it is easier to obey with hands and feet we especially are cautioned about the obedience of our speech, for every sentence we speak teaches something good, or evil. Hand in hand with the obedience and careful watch of our tongues goes kindness to others.

The early church took special care of all unfortunates. This was in marked contrast to the Pharisees scrupulous care in avoiding anything that might cause ceremonial defilement.

Paul in his story of the life of Christ says, "He went about doing good." Have you ever thought how much this simple statement covers? As we look closely at His life we find it full of quiet ministry to individuals. He had time to talk to the man who came seeking the truth in an evening call, the lepers that met Him on the roadside, Mary and Martha and the Samaritan woman. What a comfort that He did not shun the needy any more than His dearest friends, but paid marked attention to every individual request or need.

"Jesus calls us o'er the tumult
Of our life's wild, restless sea;
Day by day His sweet voice soundeth,
Saying, 'Christian, follow me'."

"Jesus calls us from the worship
Of the vain world's golden store;
From each idol that would keep us,
—Saying, 'Christian, love me more.'"

"Jesus calls us; by Thy mercies,
Saviour, make us hear Thy call,
Give our hearts to Thine obedience,
Serve and love Thee best of all."

"If ye love me, ye will keep my commandments," for to love is to obey.

Tractors Replace Horses

A 15-30 horsepower tractor has enabled J. E. Aurell, who without hired labor operates 270 acres in McPherson county, Kansas, to carry on 80 acres more than he worked before having the machine, and to do it with three fewer horses. He uses the tractor mainly for plowing which he says, he

can do better with gas power than with horses. Mr. Aurell believes that if he were to buy another tractor he would obtain a larger one than he now has. This machine pulls his three-bottom plow satisfactorily when conditions for plowing are good, but he would like to have more power so as to enable him to plow rapidly in dry soil.

On Lambert Anderson's farm, near the Aurell place, a 13-23 horsepower tractor has replaced four horses, five of these animals now being needed where nine were required formerly. This place comprises 240 acres. Mr. Anderson has used his tractor two years, to do nearly every kind of field work on his farm. He does not cultivate corn with the tractor, but this is a small part of his farm work now, as most of the cultivated acreage on this farm is devoted to wheat raising. In order to have success in operating a tractor, according to Mr. Anderson, the operator must know the machine thoroly and possess a natural aptness for the handling of machinery in general. Successful tractor operation, he says, depends more upon the man operating the machine than upon the tractor itself.

Oscar Almstrom is another McPherson county farmer who counts on replacing horses with a tractor. He purchased a 12-25 horsepower machine shortly before harvest this year, expecting to cut his wheat with it and to use it for plowing. Tho lacking actual tractor experience on his own farm, Mr. Almstrom expects that it will enable him to do his work with five horses instead of eight as before. He operates 240 acres alone, and is looking to the tractor to provide him a hired man as well as a three-horse team and a bin of oats.

The cases of these three McPherson county farmers are representative of the general effect of tractors on the number of horses kept on farms of average size. Tractors do not replace horses entirely, but they do lessen the number of them the farmer is obliged to keep and supplement those remaining. By relieving the horses that are retained of the very heavy, galling work, the animals may be kept in better condition and the breeding mares used more advantageously. Better horses naturally will be the outcome of such replacement of animal by mechanical power.

Remedy for Potato Bugs

Paris green at the rate of 1 pound to 50 gallons of water, with 1 pound of lime makes a very satisfactory poison for potato bugs. Adding the lime prevents leafburn. Arsenate of lead is also a good poison and does not burn the leaves. One and one-half pounds of dry arsenate of lead to 50 gallons of water, or 3 pounds of arsenate of lead paste to the same amount of water makes an effective mixture, if applied as the eggs are hatching. Old grubs require a larger amount of the poison.

Simply Dirty Politics

When the political fixers can't "get" a candidate any other way they go after him with the tar bucket and poison gas. And the higher the candidate stands in the esteem of the people, the dirtier the methods used. The tale-bearers, mudslingers and political polecats are called on only when the interests who employ them know they cannot defeat the man in the open and their only chance is to "start something" which may besmirch his reputation or his official acts.

A disreputable propaganda to undermine Governor Capper in the confidence of the people in order to beat him at the primary, August 6, and so administer poison gas to his candidacy for senator, is being carried on in nearly every Kansas community. Voters of experience know this is "dirty politics" and treat it with silent contempt. But a better way would be to express their disgust of such methods openly and so spoil a dirty game. Please tell those who don't know. Tell the truth.

Flexible Power

POWER that takes hold with a steady, irresistible pull, that never jerks your machinery, and that flows smoothly from engine to load

—power that makes plows dig deep and turn over the toughest sun-baked soil hour after hour

—and power that can be throttled down to a mere creeping gait. That's the

Heider

The Real All-Purpose Tractor

12-20 and 9-16 H.P.

Here's the power you want for all around farm work. Power that always fits the load, and that means longer life for your engine, with the utmost economy of fuel.

Let Heider owners tell you about it. R. E. Taylor of Dysart, Iowa, says: "My Heider is as good as ever. Haven't had one cent of expense. I used it for putting in my crops last spring. Cut my grain and for everything that needs motor power. It is the only machine to trust with hired men, as it is so simple."

Another owner, Wm. Korreck of Bird Island, Minn., says: "I bought a Heider in 1911 (seven years ago) and it is in good working order today, shelling corn at present. I used it for hauling feed, hauling grain, hauling manure, unloading hay, hauling hay from the field, pulling hay loader and binder, and for plowing, discing, sawing wood, grinding feed, shelling corn, grading roads, running grain elevator and other jobs around the farm. It has the only reliable control, barring none."

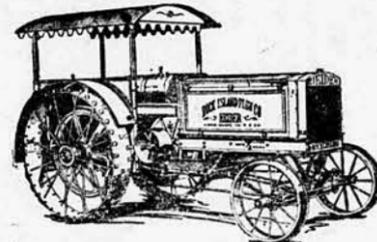
Seven Speeds—forward or reverse with one lever, and without changing gears. The Heider is backed by 10 years of successful field service in the hands of owners. It has made good in every known kind of farm work.



Plows, Discs, Planters, Seeders, Cultivators, Listers, Hay Tools, Cream Separators, Manure Spreaders, Gasoline Engines, etc. Write for our Farm Tool Catalog.

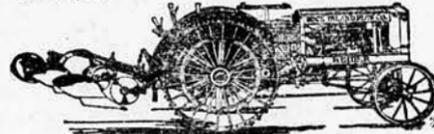
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Send for Catalog
We have Rock Island Branch Houses, Distributors or Dealers near you for prompt service.



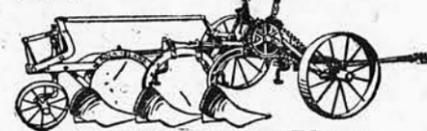
Model C 12-20 H. P.

The popular model Heider for the average size farm.



Model D 9-16 H. P.

with Rock Island No. 9 plow attached. The time and work saved in plowing. Your hands operate the tractor while your foot raises or lowers the plow. Automatic power lift. Gets into fence corners easier than you ever could with a team, and plows all the field. Sold with or without plow attached.



Use Rock Island Plows

and get the best results behind your tractor. The famous Rock Island "CTX" Bottoms turn the furrow slices clear over—prevent air spaces from stopping the moisture. Front furrow wheel lift. 2, 3 or 4 "CTX" Bottoms.

Don't fail to see the Heider work at the Tractor Demonstration, Salina, Kan., July 29 to Aug. 3.



BURNS KEROSENE OR GASOLENE

July 20, 1918.

Does His Part With Tractor

BY FRANK M. CHASE

A 20-35 horsepower tractor is helping Mose Greenleaf, owner and manager of the Greenleaf ranch of 4,220 acres in Kingman county, Kansas, to do his part in winning the war. As Mr. Greenleaf sees it, his part in this fight is to make his land produce to the limit of its capacity, and three years of experience with a tractor has taught him that it is a big aid in obtaining the maximum production on large acreages. About 2,000 acres of the Greenleaf ranch are under cultivation, the balance providing pasture for the 500 head of cattle ordinarily kept on the place.

"It would be much easier for me to go to Colorado after the grain is threshed and let somebody else put in the wheat crop for next year," Mr. Greenleaf said recently, "but my conscience will not permit me to do that. I feel that I must be on the job every day this summer and see that my crops are given every possible chance that I can give them. For this reason I shall sow my wheat in the way that my nine years' experience on Greenleaf ranch have shown me to be the best; and that is to double disk the wheat ground before plowing, plow, then disk ahead of the seeder. The tractor will be used for this work just as soon as the ground is clear. I could put the wheat in as cheaply, acre for acre, with mules and oats as with the tractor and gas, but the tractor enables me to put in more acres with less manpower and do the work more thoroly."

Mr. Greenleaf is a trained farmer having graduated from the University of Illinois in 1907, and his conclusions as to the best methods of soil preparation on his ranch are the result of an intelligent and careful study of his particular soil conditions. In addition to using the tractor for doing the heavy field work, he uses the tractor for considerable belt work, mainly in operating his silage cutter and threshing machine. In some years he has done a small amount of custom work with the threshing machine, but only when this work can be done without interfering seriously with tractor work on his own ranch.

Why the Big Show at Salina

(Continued from Page 11.)

hired man with a four-bottom plow is worth more than two equally good men each with a four-horse team and a two-bottom gang.

And it may be expected that the tractor will encourage the acclimated crops of this area. The kafirs lend themselves naturally to the use of big machinery, in fact, require it, for the greatest success with kafirs is assured by fall plowing, more seasonable planting than corn, and the crop is most available for animal food in the form of ensilage which can be put in the silo most economically with the tractor. There are other new crops that the tractor will aid, the pinto bean and peanuts. Tractors mean prosperity to the Mid-West, larger crops, more livestock, richer soil, and a more contented people. This is the vision that the "wise men" had in mind when they planned for the national tractor demonstration at Salina.

Rules for Salina Tractor Show

Rules and regulations governing the National Tractor Show which will be held at Salina, Kan., July 29 to August 2, inclusive, have been so planned as to meet almost every question that may arise. A. E. Hildebrand who has had charge of all the big tractor events of this country for a number of years is the general manager. Each exhibiting company also will have a local manager. All public demonstrations will begin at 1 o'clock and will end at 3 o'clock. Private demonstrations will be held from 8 o'clock to 11:30 o'clock. The following rules and regulations will govern the demonstrations:

1. Public demonstrations shall begin at 1 o'clock and end at 3 o'clock, unless other hours are announced by local committee at least 24 hours before starting time. Private demonstrations may be held in the forenoon from 8 o'clock to 11:30 o'clock.
2. No exhibitor shall be allowed more than one tractor of each size and type on the field during the public demonstrations doing the same kind of work. He may have one or more machines performing different operations, namely, one plowing, one disking, one seeding.
3. Size of land for each tractor exhibitor for plowing demonstrations will be determined by the average number of plow bot-

4. All plows on any given gang must be set at the same depth and kept there during the day's demonstration. This depth will be announced daily, by the general manager. Plows found operating otherwise will be ordered from the field for the balance of the day's work.
5. All exhibitors will be allotted land in the same field or adjoining fields during each day's demonstration. Land for private demonstrations will be provided daily, in one field or adjoining fields.
6. In all public demonstrations the motor or tractor must not be run at more than 10 per cent above its catalog plowing speed. Tractors may be run on high gear with normal engine speed when disking, harrowing, seeding.
7. Positions on field first day will be arranged by lot, in following manner: Drawing to take place at 10 o'clock Monday, the opening day of demonstration, by serial numbers representing total number of exhibitors. Position on field, for the first public demonstration will be according to numbers, starting 1, 2, 3, 4. The total number of exhibitors will be divided into same number of divisions, A, B, C, and thus continue thru the divisions. "A" will occupy preferred position on first day public demonstration, and "B" preferred position on second day, and so continue thru the list. Exhibitors who do not have representatives at drawing, the drawing will be done for him under direction of the general manager. Each exhibitor will be required to finish his land daily in a workman-like manner, and assist in plowing the end lands as directed by the general manager.
8. Each field plowed will be surveyed and staked ready for afternoon demonstrations. These fields will be tested for the drawbar pull of a 14-inch plow, plowing at the specified depth previous to the demonstration. All manufacturers will be given information relative to drawbar pull so they better can determine the number of plows to use on each gang.
9. Each tractor shall bear a placard, to be provided by the chief observer, showing the brake horsepower of the engine, the revolutions a minute, the plowing speed in miles an hour, and the kind of fuel used and its Baumé test. Tractors using more than 5 per cent of gasoline shall be classed as burning gasoline and be so placarded.
10. All tractors on the demonstration field belonging to one exhibitor must be kept on or along the land allotted him for that day's demonstration, until the hour designed by management for returning to headquarters.
11. No machine will be permitted to oper-

- ate with special equipment other than that designed for practical use with same. No spectacular methods will be permitted on the part of salesmen, or others, to attract crowds. The demonstration must speak for itself.
12. Every tractor exhibitor will have the privilege of burning any kind of fuel he desires, but no one will be permitted to burn fuel of higher gravity test than that used by his competitor burning the same kind of fuel. All exhibitors will be required to obtain fuel from one source, such to be designated by the general manager.
13. No time will be required of exhibitors to make movie pictures or group photographs for commercial purposes. Manufacturers can arrange to get photographs during the demonstration if they desire. Any manufacturer or representative of farm or trade papers, or news agency, will be permitted to have an official photographer on the grounds to get pictures for his own use.
14. Manufacturers will be privileged to make brake horsepower, drawbar pull, and such other efficiency tests as they desire. All such tests desired should be reported to the general manager not later than July 15, so that sufficient number of Prony brakes, dynamometers and other apparatus can be provided. These early announcements will also be necessary in order that suitable number of competent judges and sufficient acreage can be provided for all who desire to make tests.
15. The results of all tests made at the demonstration shall be given to the exhibitors only and no exhibitor may publish the results of the demonstration or official report of any test made without the permission of the general manager or the association except by permission of the exhibitor making the test.
16. Manufacturers will be privileged to exhibit, not in connection with their exhibition, any arrangements will be made for daily demonstrations showing use of tractors harrowing, disking, seeding and other farm operations. Demonstrations governing these demonstrations will be the same as those applied to plowing.
18. The interpretation and enforcing of these rules shall be left to the local manager of each demonstration and the general manager of the demonstrations.
19. Each company exhibiting at these demonstrations shall appoint one manager who will be expected to report to the general manager not later than 8 o'clock each morning for instructions and information regarding the day's work. This manager of exhibitors will be held accountable for the work of his company and no instructions will be issued to anyone else, nor will requests, instructions, or complaints be recognized from

- anyone but this exhibit manager. He shall wear a badge provided him, specifying his being official exhibit manager.
20. Each exhibitor will be expected to keep plows, tractors and all machines around his tent arranged in first class order, and the land allotted him for exhibiting purposes free from circulars, such as will be distributed around headquarters daily, and all rubbish. They also will be expected to use care at all times in operating machinery with respect to its safety for all visitors. The management will appreciate co-operation of these exhibit managers in all matters.
21. Each entrant will sign the rules and thereby agree to live up to the rules and cooperate with the committee in every way to make the tractor demonstration a success.
22. The field manager shall have authority to order from the field any machine whose operator does not comply with the rules, and, further, any exhibitor who is manifestly disregarding the rules will not have land laid out or furnished for him on the succeeding days, or until such time as he has met the conditions.
23. No exhibitor joining the National Demonstration will be permitted to exhibit until he has given correctly the price that he is in position to supply tractors at regular production, the correct weight of tractors, and all data pertaining to their construction and rating, minimum and maximum speed at which the motors are to run, and the committee have the right to have any such machines placed under test to prove the correctness of the data that is supplied.

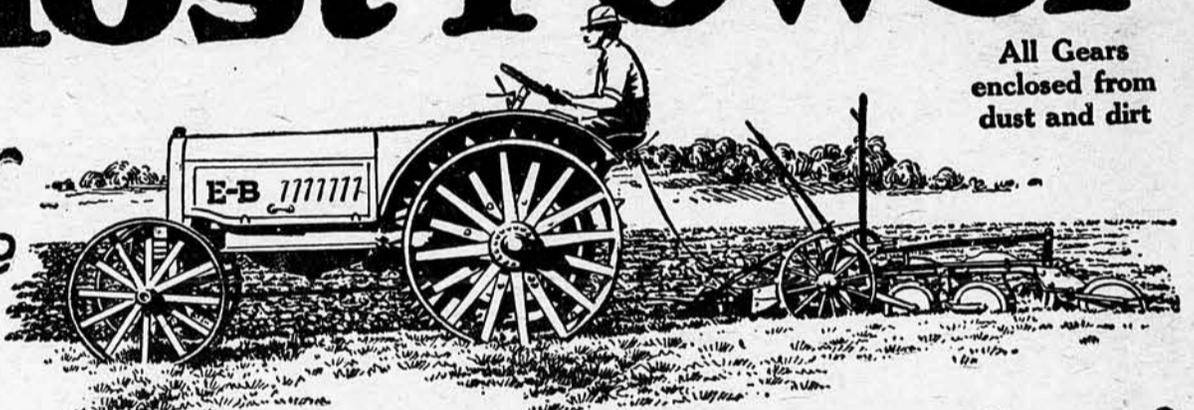
Desires Good Kafir Header

Nearly every farmer this year is interested in getting the best farm machinery possible. W. S. Baird of Vesper, Kan., writes the Farmers Mail and Breeze he desires to get a successful kafir header that can be fastened on a wagon box and that will cut the heads off the rows of kafir as the wagon is driven along. He desires to hear from farmers who have found a satisfactory header and would rather accept their statements than those of dealers who might try to sell him an unsatisfactory machine.

Frost may catch the corn crop, and a severe winter kill the wheat, but the cream check keeps coming every month.

Most Power

for the



All Gears enclosed from dust and dirt

Weight and Money Ever Offered

THIS new E-B masterpiece of tractor construction supplies the demand the farmer has long been making of the tractor manufacturers:

"Give me a small, compact tractor with **big power** and **light weight** at a **low price.**" Consider this: 12-20 horsepower S. A. E. (Society of Automotive Engineers) Rating means **25% more actual power.** A proved 15-25 horsepower in field and belt work.

As for the weight and price—both surprisingly low.

Read this list of other good qualities:

So easily handled and controlled that a boy or woman can operate it.

The most power for the weight and money ever offered.

All gears enclosed and dust proof—insurance against excessive wear.

It will pull a full 12-20 load and still have plenty of power in reserve for any emergency.

The 12-20 is S. A. E. rating—only 80 per cent of the actual power the tractor develops. The E-B Model AA is first tractor in the field to adopt S. A. E. rating.

Easy to care for—only grease cups to be filled daily are on the fan and front wheels. Four wheels—none running in

the furrow, front and rear wheels track.

Four-cylinder E-B Kerosene Motor—economical, reliable, elastic power.

Equipped with best accessories on the market, K. W. Magneto, Bennett Carburetor, Bennett Air Cleaner, Hyatt Roller Bearings, Bantam Ball Thrust Bearings, Modine Radiator.

Built by a company that has been the leader in tractor manufacturing for 11 years and has originated the best features in modern tractor design.

ACT NOW!

Many farmers who knew of this new E-B Model AA put in reservations before this announcement was ready. In fairness to everybody, orders will be filled in the order of application.

So get the facts NOW—about low cost, light weight, big power. See it at the National Tractor Demonstration, Salina, Kansas, July 29th-August 2nd.

We'll tell you how to make reservation. But get all the facts first.



12-20 S. A. E. Rating Model AA

EMERSON-BRANTINGHAM IMPLEMENT COMPANY, INC.
Rockford, Illinois
Established 1852

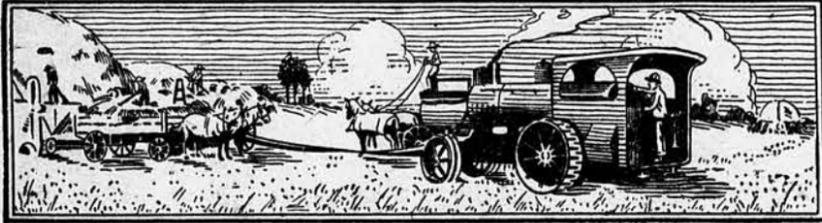
YOUR PROBLEM—To increase crops with decreased help

YOUR REMEDY—E-B Tractors and labor-saving farm machinery

Many Uses for the Tractors

A Power Unit that Will Lift the Burden of Chores

BY ARTHUR L. DAHL



OUR farmer boys were among the first to volunteer for service overseas, and at a time when food producers were called upon to exert every effort to increase their cultivated areas and grow the maximum crops, farmers were confronted by the greatest shortage of labor in their history, for not only did they lose the labor of their own sons and helpers who enlisted, but they found the demands of the shipbuilding, munitions and other war-working industries, absorbing every available able-bodied man. But the farmer of today is no shirker. With the spirit of his ancestors who pushed forward into the Western wilderness and overcame all opposition, he set his jaw, jumped into his automobile and hurried off to his dealer and bought a tractor to replace the manpower on his farm. His knowledge of the mechanism of the motor car stood him in good stead, for he was able quickly to grasp the instructions for operating the tractor, and put it to immediate use.

The great advantage the tractor has over horses is its ability to deliver a great amount of power with the same amount of supervision which a two-horse team would require. Machines with a rated horse-power running from 10 to 80, can be operated by the same man who, under old-fashioned farm practices, would drive a team and hold one plow, as it passed slowly and laboriously over a rough field. A modern tractor of the smaller type, will plow a field in one hour that would require the hardest kind of labor of a team and man for an entire day, and the work would be done better and more evenly. The larger tractors, ranging from 30 to 80 horse-power, will pull a battery of plows, and in one operation plow a strip 20 or 30 feet wide. One man on the machine can operate the entire outfit. Furthermore the tractor can be kept in constant operation hour after hour, thru the day and night if necessary, while horses must be rested every little while, and they can-

not continue work for more than a few hours, when they must be fed and watered. Night plowing is almost impossible with horses, unless fresh stock is available for the purpose. On some of the big bonanza grain ranches of California and in the Northwest, tractor outfits have been operated continuously for several days and nights in order to complete a job in the shortest possible time. Headlights supply light for night work, and a change of shift for the operators keeps the work going continuously. The tractor, being insensible to fatigue, goes chugging along doing its work so long as the fuel tank is full.

Horses are Supplanted

In general, tractors do not entirely supplant horses, tho they do reduce the number needed, for the average farmer who owns a tractor keeps only as many horses as he needs for odd, light jobs about the place. All the heavy work, such as plowing, harrowing, cultivating and harvesting is done more expeditiously with the tractor, but there are many ways in which a team of horses can be utilized on a farm. The availability of the tractor for all work which would tax the powers of the horses, renders it always ready for the odd jobs on the farm. When the tractor is not working it consumes no fuel, and if properly protected from the elements, it can be stored away until needed, requiring neither the time nor expenditure on the part of the owner. Horses must be fed and attended to whether idle or working.

The tractor is in many ways more versatile than the horse, for not only has it the pulling ability of the animal, but its engine, when belted to machines can do a great many kinds of work

impossible with horses. The tractor engine, when used on belt work entirely, will develop even a greater power than for pulling, because in the latter case it has the weight of its own machine to overcome, while in the former instance all the power of the engine can be put to use. Water can be pumped for domestic use, or for irrigation, or to water stock; feed can be ground, silos filled, wood cut, or the cream separator operated. The winter's supply of fuel wood can be cut in the woodlot and hauled to the house by tractor power, and lime can be ground from native rock to sweeten the soil. Heavy hauling can be done with a tractor, which is capable of pulling a number of loaded wagons or trailers. In fact, in the West tractors are coming more and more into use for hauling supplies to mines, lumber camps and other places in remote sections where the roads are poor and the grades heavy. Telegraph companies are using them to haul poles for new lines across sandy deserts because of their superior traction, and contractors are finding them invaluable in supplanting horses where the temperature is high and where water is scarce for horses, as in Death Valley, in California.

Dependable Power Supplied

During all the various stages of agricultural work the tractor will supply dependable power for any purpose. It will plow the field, pull seed-planters, cultivate the growing crops, and finally operate the cutting and binding machines. Its engine, by being belted to the threshing machine will thresh the grain, and likewise it will supply power for baling hay or straw, or for cutting the green feed for silage. It will elevate silage into the silo and pump the water for wetting it down. Dragging a scraper or scarifier it will keep the country road in good repair, and its power is available for pulling out stumps to clear the land for cultivation or to obtain fuel. The use to which the modern tractor can be put is limited only by the resourcefulness of its owner, and every day new ways in which to demonstrate its versatility are being devised. With proper care these machines require no more attention than an automobile, and a knowledge of one is of assistance in operating the other.

Until the war is over and the millions of our young fighters return to take up their usual vocations, the labor situation in this country cannot be improved, and until the war is over it is quite apparent the shortage will become more severe. The farmers cannot hope to receive adequate manpower during the period when our need for increased production is the keenest, but in the modern tractor to supply power, and improved agricultural implements to do the work better, quicker and with the least supervision, his outlook for the future is pleasant, for under the spur of necessity he undoubtedly will find, as did the manufacturer, that machinery can take the place of men. The blind, but wonderful power that dwells in the modern motor, when controlled and directed by the intelligence of man, can be made to do a great work for humanity. Women, too, are taking their places side by side with their fathers, their husbands, or their employers, and are learning to run tractors and operate other power machines on the farm, so that adequate help will be forthcoming to produce all the food needed to sustain ourselves and our allies until the great war for freedom has been won.

Motor Trucks Haul Wheat

The present labor shortage is causing farmers to use every means possible to expedite farm work. New wheat was brought into Topeka last week at the rate of 15 to 20 wagon loads a day. Many Kansas farmers are using motor trucks to transport their grain and in this way save much valuable time since the motor trucks travel more rapidly and haul much larger loads than ordinary wagons. There is no doubt that this year many farmers in Kansas will buy motor trucks, motor cars, and power farming machinery. One Topeka mill received 16 wagon loads of wheat in one day last week and eight of these were transported in motor trucks. Farmers are now speeding up threshing and mills in Topeka expect all the new wheat that can be handled this week and next.



First Choice of Farm Help

THE difficulty of obtaining farm help today is not due entirely to the scarcity of capable workmen. In many instances it is due to the fact that living conditions offered the "hands" on the farm are unattractive.

The farm laborer, as well as the farm owner, is learning to demand better quarters—something approximating what folks have in town. And the farm housewife is more than tired of maintaining her home as a rooming house for farm employees.

Many of the best farm workers available in the country today are married men. Many of these will not accept permanent employment where they

cannot have their families with them—and they don't have to.

The farmer who has first choice—and an adequate supply—of farm help today is the farmer who provides livable tenant houses for his employees; quarters where the unmarried workman may enjoy some measure of comfort and privacy in his leisure hours and in periods of enforced idleness, and where the married workman may have his family with him.

You can make no better investment than to build tenant houses for your farm help. Consultation with your home lumber dealer will prove to you that the cost of such improvements is surprisingly moderate if the building material you use is

Southern Pine

"The Wood of Service"

Southern Pine is the most plentiful lumber on the market today, and consequently is lower priced than any other wood of anything like the same high quality. It is perfectly adapted to a greater variety of uses than any other wood that grows.

Perfectly manufactured, accurately graded Southern Pine in all its forms may be had everywhere east of the Rocky Mountains. For tenant house construction, as in other farm building, it is the most serviceable, workable and economical material you can buy.

 **Southern Pine Association** 
NEW ORLEANS, LA

Fumigate the Granaries

BY GEO. A. DEAN

This is the best time to get rid of the insects that may be found in the bins and granaries. If left undisturbed, they will infest the new crop and in a short time may cause a loss equal to 5 to 15 per cent of the total value of the grain.

To avoid infestation in the stack, the grain should be threshed as soon after harvesting as practicable. Fresh grain should not be exposed to attack by storage in bins or granaries containing infested grain. Before storing, the old grain should be removed and the floors, walls, and ceilings of the bins thoroly cleaned. If the granary has been badly infested, it should be fumigated before the new grain is stored. All dust, dirt, rubbish, refuse grain, flour, and meal, which serve only as breeding-places, should be removed. A liberal use of air-slaked lime is recommended for dusting in corners and along the edges of bins. This lime should be dusted in the bins as soon as they are empty, but removed before storing the grain.

The simplest, most effective, and least expensive remedy for all insects infesting grain and grain products stored in tight bins is careful fumigation with carbon bisulfide. The amount of liquid to be used depends on the temperature, on the size and shape of the building, on its tightness, and on the nature of the attack. Our experiments in fumigation conducted in practically an airtight chamber, show that at a temperature below 60 degrees F. the amount of carbon bisulfide required and the results obtained are so unsatisfactory that it is impracticable to attempt fumigation. If the building is reasonably tight and the temperature is above 70 degrees F., 5 pounds of carbon bisulfide is sufficient for every 1,000 cubic feet of space, or 1 pound for every 25 bushels of grain. If the bins are not sufficiently tight to permit thoro fumigation, the amount of the liquid should be doubled or even tripled.

The building and bins must be as nearly airtight as possible in order that the vapor may remain in all parts of the space in full strength and for the required time. The vapor must enter all cracks and crevices by diffusion. Doors should be wedged tight. If they are loose, either paper should be pasted over them, or cotton batting should be stuffed into the openings with a case knife. A similar treatment should be given all holes and cracks in the walls and floor. The batting should be packed tightly.

Since the bisulfide vapor is heavier than air and settles to the lower parts, the liquid should be placed in shallow pans on shelves at the top of the bins or buildings. It should be distributed well, not more than 1 pound in a place, and even less than this amount where it is practicable to have it distributed in small quantities. If larger amounts are used in one place, the bisulfide should be placed in pans having considerable evaporating surface.

The bins should be fumigated 36 hours. If the grain is not to be used for germinating purposes, it is well to subject it to the fumigation for 48 hours. The best plan usually is to apply the liquid on a Saturday afternoon and leave the building closed until the following Monday.

Doors and windows should be opened wide and the building or bins aired thoroly 1 or 2 hours before being entered. Slight traces of the odor will linger in corners and other places where the air does not circulate freely, but these will gradually disappear.

The vapor of this liquid is highly inflammable and explosive. Hence the application should always be made in daylight, for artificial light of any kind is dangerous. Electric lights must not be used, since when turning them on or off there is always danger of producing a spark that might ignite the vapor from the bisulfide of carbon.

Poison for Squash Bugs

Arsenate of lead applied to squash, pumpkin, cucumber, and related crops will control the insects which attack these plants. Arsenate of lead may be obtained in the powdered or paste form, either of which may be used for liquid sprays. The powdered form must be used for the dust spray. This should be mixed with airslaked lime in equal parts before it is applied. Two tablespoonfuls of arsenate of lead paste to

1 gallon of water is the right proportion when the poison is to be applied as a spray. When large areas are to be sprayed the poison should be mixed at the rate of 2 pounds to 50 gallons of Bordeaux mixture or water, and applied every week until the pest is under control.

In addition to the striped beetle, and other chewing insects, green lice and the larger, dark-colored, squash, stink-bugs also attack these plants. The green plant lice may be controlled by applying a solution containing tobacco juice or nicotine-sulfate. The first stink bugs that appear may be killed by hand. The small patches of oval-shaped, yellow eggs which may be found from day to day on the leaves should be destroyed. These are laid by the adult bugs.

Dillon's High School Journalism

"Journalism For High Schools, by Charles Dillon," says the University Kansan of Lawrence, Kan., "is full of valuable hints and detailed suggestions to teachers and pupils in jour-

nalism courses. It is invaluable as an aid to systematic study of the newspaper. The book takes up various phases of newspaper work in considerable detail.

To the teacher who has studied journalism in college the book will be a great help as a guide to the knowledge a beginner must be afforded in newspaper writing or in his study of English.

Three especially important subjects are emphasized in the book: First, how to make the high school paper pay its way by means of advertising and how to arrange advertisements and how to handle subscriptions; second, a list of "Cautions for Writers."

Boys' Clubs Bring Thrift

A woman requests me to say to you, and request you to repeat for her to her tolling sisters thru the Farmers Mail and Breeze that in her opinion, the organizing and encouraging pig clubs for boys and poultry clubs for girls encourages habits of industry, thrift, honest endeavor, virtue, and

the building up of homes, and a love of home and country far more than the employment of those boys and girls to raise thousands of hogs, tons of poultry, and thousands of acres of crops for Governor Capper to market and put the profits in his pockets would do, and is, therefore more in harmony with the spirit of Jesus Christ, who died for all of us.

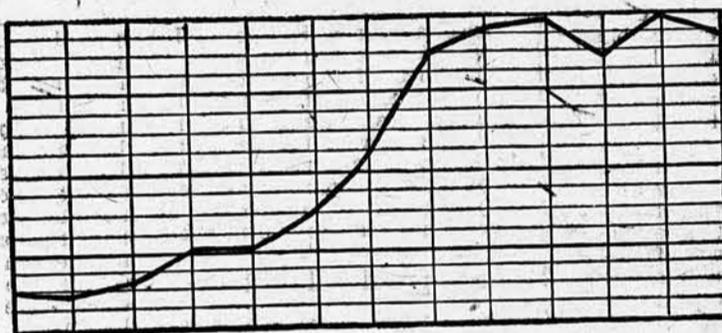
It seems to me that this is the keynote for a "safe and sane" national politics, and for a "world wide democracy" for if we send men to Congress who gather for themselves, we need not squeal when they do it, and push us out to "the gate." It was that kind of voting that entrenched the profiteers.

Kanopolis, Kan. T. K. Griffith.

Likes His Farm Paper

I most cheerfully enclose herewith check for \$1 to pay my subscription to the Farmers Mail and Breeze for another year. I thank you for so good a paper at such a reasonable price.

Abilene, Kan. F. M. Williams.



Why live stock prices go up and down

WHEN there is more dressed meat on the market than there is consumer demand for it, meat and live stock prices go down.

But when the consumer demand for meat is greater than the supply, meat and live stock prices go up.

This is the law of supply and demand. It is the law that determines the prices the producer gets for his cattle.

* * * *

Between the producer of live stock on one hand and the consumer of dressed meat on the other hand is the service of the packer.

The packer turns the live stock into dressed meat and by-products and then distributes them to the retailer.

Out of every dollar the packer receives for this meat and by-products he pays 90 cents, approximately, for the cattle.

The remaining 10 cents on the dollar must pay for dressing, freight to market, operation of distributing houses, and in most cases delivery to the retailer.

Out of what is left must come the packer's profit. For Swift & Company during 1917 this amounted to a net profit of 1/4 of a cent per pound of beef. On all products, it was only a little over half a cent per pound.

A reasonable profit margin is necessary to enable the packer to operate without endangering the efficiency of the business and its value to the producer as a marketing agency for live stock. Complete elimination of these profits would have practically no effect on the farm prices of live stock nor the retail prices of meat.

Swift & Company will gladly co-operate in the carrying out of any national policy that will tend to steady the prices of live stock and meat.

Swift & Company, U. S. A.

A nation-wide organization with more than 20,000 stockholders



Houses for Farm Help

BY FRANK HOWARD SCOTT

Among other radical changes the disjointed times have brought about, the farmer is going to be compelled to adopt new measures if he is to attract and hold the help he needs in his business. Marked increases in wages, already pretty generally in effect, have failed and will continue to fail to do the trick. Wages have advanced as much or more in other occupations, jobs are to be had everywhere in this era of feverish industrial activity, and labor, skilled and unskilled, is becoming more capacious and independent every day. The employer of farm labor must seek another way out—and with the question put up to them in this way, a good many thousand farmers will promptly rise to inquire, "What way?" The answer is: Make living conditions more attractive for the hired help on the farm. That idea at first may not impress some farm owners, but if they will think it over they will begin to see that it has some convincing features; understanding at the outset that, when "more attractive living conditions" are mentioned, it is not meant that the farm must be equipped with a motion picture show and an ice cream soda fountain, but that the accommodations provided for the farm employes approximate those enjoyed by folks in town. In other words, give them quarters to themselves, where they can be comfortable in their own way in their leisure hours or in times of enforced idleness, and where they can enjoy some measure of privacy and independence of action.

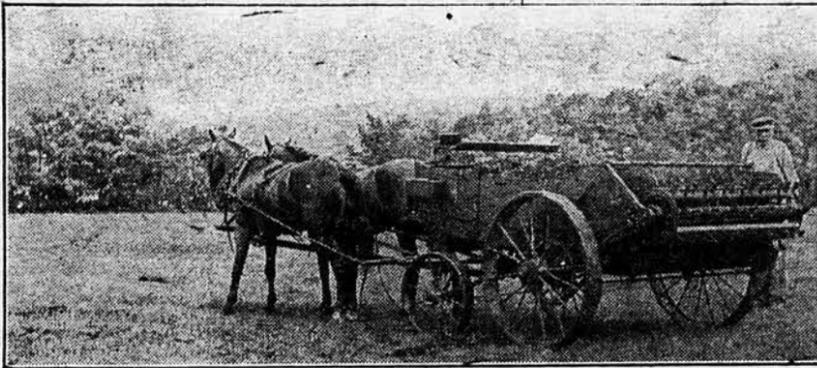
As the war takes more and more unmarried men and men otherwise without dependents into the army and navy, the farmer, like every other employer of labor, must depend more and more on married men and men of mature years. There is no trouble about that, because many of the most capable and dependable farm workers in the country are married men. There is however, this complication: A man of family, if he has any "pep" in him, will not accept permanent employment where he cannot have his family with him—and you can't blame him. If you are going to attract such men to your farm and keep them there, you must make it possible for him to bring his family along. If you could offer

that man a neat, livable tenant house with possibly enough ground for a garden plot, and a pen of chickens of his own, you would have an inducement that would come pretty near commanding the pick of all the available married farm laborers. Tenant houses on the farm are by no means an expensive proposition when their advantages are considered. The advance in the price of lumber since the European war began has been far less than the advance in farm products or almost

ing power, warmth and aeration, but when it decays it also leads to the production of larger quantities of available plant food from the soil itself, and stimulates bacterial activities. Manured soils have shown greater production of nitrogen available for plants than have unmanured soils, and this is due to the greater bacterial activities. No manure on the farm should be wasted. Every bit of it should be scattered over the fields where crops regularly are grown and harvested.

by hand. Another point of vital importance is that a ton of manure can be spread over more ground with a spreader than by hand, and useless waste of fertilizer is avoided.

The quickest effect of manure is obtained when it is applied as a top dressing on plowed ground and thoroughly worked into the soil to a depth of 3 to 5 inches. Top dressing a field of winter wheat does not have to add very many bushels to the acre yield to pay for the machine in a single year, and beside this, the fertility returned to the soil by spreading the manure is not all used up with the first crop. Its beneficial effects will remain for several years after the application is made. There ought to be a manure spreader on every farm. It is the best crop insurance that a farmer can have.



Light Applications of Manure can be Made Effectively only by the Use of a Good Manure Spreader.

any other important commodity. For example, a given amount of products from your farm will purchase today about twice as much Southern pine lumber as the same amount would in 1914. Buildings of this sort add a value to your farm much greater than their original cost. Aside from the fact that they attract the best class of farm labor, it is a great satisfaction to be able to quarter your employes, permanent or temporary in some place other than your own home.

Manure Spreaders Profitable

More than 2,000 years ago it was known that farm manures would increase the yields of all crops. Since then the need of putting back into the land in this way some of the fertility taken out by crops has become more and more evident. A ton of manure adds on an average about 425 pounds of organic matter to the soil. This not only improves the physical character of the soil with regard to water-hold-

ing power, warmth and aeration, but when it decays it also leads to the production of larger quantities of available plant food from the soil itself, and stimulates bacterial activities. Manured soils have shown greater production of nitrogen available for plants than have unmanured soils, and this is due to the greater bacterial activities. No manure on the farm should be wasted. Every bit of it should be scattered over the fields where crops regularly are grown and harvested.

Grades for Potatoes

The U. S. Department of Agriculture recommends that Irish potatoes be graded before they are placed on the market, but the government does not require it for marketing. All growers should keep in touch with the U. S. Bureau of Markets at 212 Railroad Exchange building, Kansas City, Mo., where the potatoes about to be shipped will be inspected for grades if it is desired. Most of the potatoes grown in the Kaw valley will grade No. 2, it is said.

In order to grade No. 1, the potatoes must be free from foreign matter, frost injury, sunburn, second growth, cuts or scabs and should be not less than 1 7/8 inches in circumference, and 1 3/4 inches long. Grade No. 2 consists of potatoes of similar varietal character as No. 1, but must be not less than 1 1/2 inches in diameter.

Kill the Useless Curs

BY DR. W. H. DALRYMPLE

There are entirely too many useless dogs around country places. Many of them are likely to get the sheepkilling habit, and all of them have to be fed. Much of the food that they consume is in the nature of human diet which might be used for that purpose. It has been estimated that the dogs of this country eat food enough of this kind to feed an army of more than 2 million men.

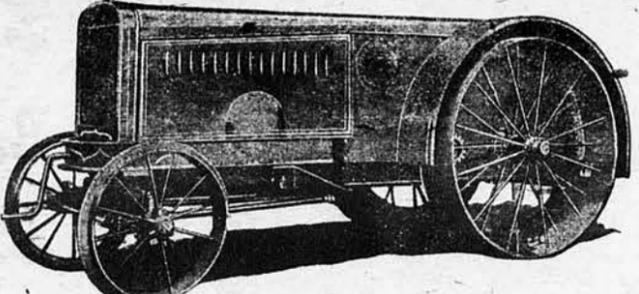
Is it right or patriotic at this time, then, to continue to feed hundreds, and perhaps thousands of worthless dogs on food that is suitable for human consumption; and that not only destroy, but prevent the raising of one of our most valuable food animals, irrespective of the wool that the sheep and lambs would be capable of producing? The shepherd dogs and the collies are the only dogs that are worthy of a place on the farm at this time. In the interests of food conservation all others should be killed. The subject is one of too serious nature at this time to permit sentiment, in favor of the cur-dog, to outweigh the urgent necessity for an immediate increase in the people's food and wool supply. A heavy tax on useless dogs would tend to diminish the evil.

How to Buy Nails

It too frequently happens that in going to the hardware store to purchase nails we find ourselves in doubt as to what size we want. Nails are usually sold by the pound and according to the "penny." For example, a 10d nail is 3 inches long and .15 of an inch in diameter. The following table compiled by the Colorado Agricultural college gives information on the different common nails. Remember that brads differ from common nails only in the head and point.

Size	Length in inches	Diam. in inches	Nearest B & S Gage	No. in pound
2 d	1	.07	13	876
3 d	1 1/4	.08	12	568
4 d	1 1/2	.10	10	316
5 d	1 3/4	.10	10	271
6 d	2	.11	9	181
7 d	2 1/4	.11	9	161
8 d	2 1/2	.13	8	106
9 d	2 3/4	.13	8	99
10 d	3	.15	7	63
12 d	3 1/2	.16	6	49
16 d	4 1/2	.19	6	31
20 d	4 3/4	.21	4	24
40 d	5	.23	3	18
50 d	5 1/2	.24	2	14
60 d	6	.26	2	11

The Mid-West Horticultural Exposition to be held in Des Moines in November offers prizes for canned fruits, preserves and jellies made without sugar.



40%

RESERVE POWER

SEE IT AT SALINA

NEW PEORIA 12-25 TRACTOR

With unusually large motor, combined with the most modern method of power transmission gives it 40 per cent reserve power—making it almost impossible to get stuck. It is of standardized construction and a winner under all conditions of farm work. It is easy to operate, control and maintain. Will soon pay for itself. The farm tests all prove "Peoria" efficiency and economy demands it.

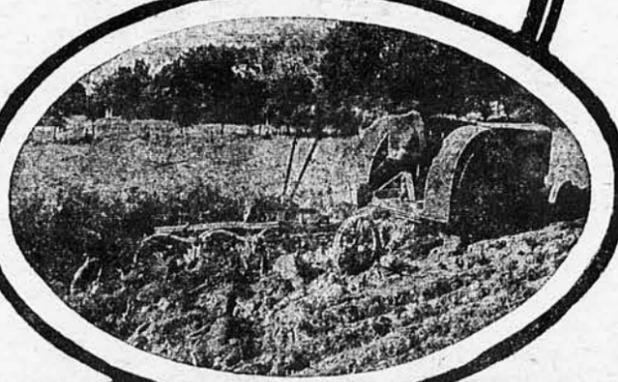
THE CLIMAX MOTOR
INSURES DURABILITY—ALWAYS READY TO "GO" and means a steady, ever-ready power at the draw-bar and belt. It burns Kerosene and costs less for power. It assures a plowing speed of about 2 1/2 miles per hour. It furnishes plenty of power for all jobs.

TO ALL OWNERS
of the old model Peoria Tractors, we have a specially good proposition to offer.

WRITE AT ONCE
for new illustrated circular which completely describes the merits of the new model.

PEORIA TRACTOR CORPORATION
DEPT. 31, PEORIA, ILLINOIS

THE "PEORIA"
pulling three 14 inch plows, 8 inches deep, up a 15 per cent grade—in 14 year old blue grass sod.



Sheep in Summer

BY ANTHONY R. GOULD
of the American Sheep Breeder in the Shepherd's Calendar.

The summer is the ideal time to select ewes for the flock, either to increase its size or to replace old or otherwise unprofitable ewes. Ewes that do not produce regularly should be dropped, also those that breed out of season. After the flock has been established the needed increase can be taken from ewe lambs. In selecting these, advantage should be taken of the early maturing lambs of the right type, thus making it possible to produce earlier maturing stock every year. It is also possible to select from the offspring of heavy milking dams, as this is a desirable quality and can best be determined by the mother's performance. Select the stock to be added of nearly the same age and preferably from the first part of the crop, as these lambs are thriftier and larger at the breeding season and will produce the desired early lamb. If additional increase is desired, ewes may be obtained locally or from Western ranges by purchases thru the livestock markets. The Western ewes are principally of Merino blood and less likely to be infected with stomach worms.

No matter where the ewe stock comes from, the selection should be uniform, as this means that the future lamb crop will not be culled so heavily when sent to market. The ewes also should be well grown and thrifty, not necessarily fat, but showing that they received good feed and are free from diseases. A good constitution for a ewe is indicated by active movements and alertness to strange sounds. About the head of a good mother there is a matronly appearance, indicating that she not only will care for her young, but is fearless enough to protect it. Pink skins, wide chests and full bosoms, high heads, short legs placed well apart and a suggestion of style, vitality and compactness in their form are desirable. Since mutton and wool are both the products of the farm flock, a ewe of good mutton form is much to be desired, as very excellent lambs can be obtained when crossed with purebred mutton rams. At the same time a dense and compact coat of wool is necessary, as such fleeces usually will pay for the keep of the ewe. Moreover, a well fleeced ewe can stand greater changes of climate and endure more hardships.

Care should be taken not to get ewes that are over 4 years old. Yearlings and 2-year olds are the desirable kind, as they have their lives of productiveness before them. Age can be told by the teeth. Lambs have thin teeth. The middle pair are replaced when the lambs are 12 months old by wider, longer, heavier teeth. The next pair of milk teeth disappear a year later and the third pair when the sheep are 3 years old. The fourth and last pair of mature teeth come the fourth year, and after that age can only be roughly estimated.

A purebred breeding ram should be used consistently in the flock. This means rapid improvement, since the ewes are grades. The reason for this is that the purebred carries a concentration of characters, which makes it possible for him to impress his form and appearance more strongly upon the lamb than the grade ewe. Since this is true it is important that he be of mutton type so as to produce lambs of greatest market value. However, it is also important that he have a good fleece if ewes from the lamb flock are to be kept. Such a ram must be symmetrical or evenly developed, wide and deep for his length, or blocky, have well filled thighs, deep, full twist, wide loin, well sprung ribs and a firm even flesh. He should also be active and vigorous, showing bold, brisk, direct movements, a bright, wide-open eye, a broad, heavy nose and expanded nostril, stylish carriage and prominent front. Masculinity is desired, as indicated by the heavy nostril, wide head and short, heavy neck. He should be well developed and should show the outstanding characteristics of his breed.

Silage for the Livestock

Livestock farmers in general recognize the necessity of silage. Milk cows give more milk at a lower cost with a large part of the ration silage. Beef cattle respond well to properly balanced silage rations, and a majority

of the cattle marketed from the corn belt have been silage-fed.

After all, the most important question is, does silage pay? It has paid in most instances where it has been tried, and in cases where it has not proved profitable it probably was thru no fault of the silage. The advantages of silage are many. It insures a crop of desirable roughage and gives a large yield an acre at a comparatively low cost a ton. In sections affected by drouth it saves a large per cent of the corn crop that otherwise would be wasted in the form of stalks and fodder. It is economical to store, as about half of the space is required that is required to store hay. Silage is palatable and will keep the stock in a thrifty condition. In summer where the drouth destroys the pasture it supplies a succulent food during these seasons. A larger number of cattle can be kept on the same acreage of land than may be kept on forage crops cut for hay.

Buying Foundation Stock

We have on many occasions visited breeding herds and inspected groups of females which the breeder was willing to sell. In many cases the offering consisted of a group of heifers of a certain age, bred or open, varying from five to 25 in numbers. In other cases the ages were mixed. In still others the offering was limited to aged cows in calf—matrons highly prized, but now advanced in years.

Uniformity of type would be especially in evidence in the case of the heifers. In many instances they would all be by one sire, in other cases by two or three sires, but as a

rule would represent the strains of breeding which the owner had maintained in his herd for several generations and presumably of families that he held in high favor. Our observation has been that as a rule the prices which the owner would ask would not be exorbitant. In fact they have often appeared to be conservative.

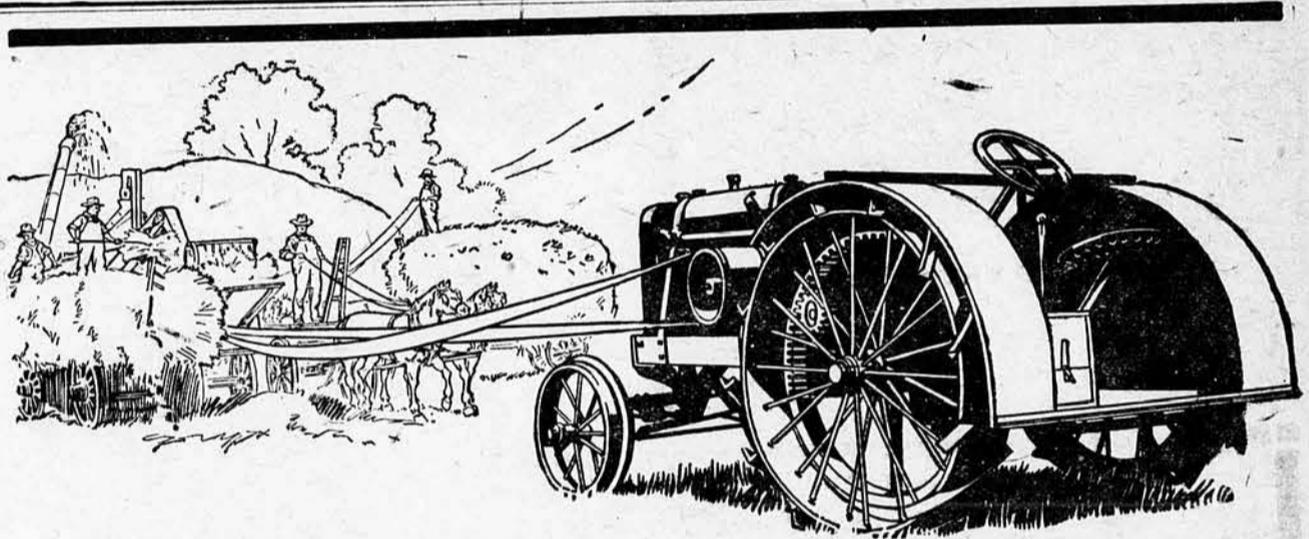
It has seemed that any man who was in quest of breeding stock would find it to his advantage to make such a purchase from a herd of recognized standing, for he would be assured at the outset of producing cattle of decided uniformity of type and characteristics. It would place in his hands the blood lines he desired. He could then make his selection of the sire that, in his judgment, would best mate with his females and in that way he would be able to impress upon the public the strength of his breeding herd from the very start.

We have known where a number of breeders have started in this way and we have observed how quickly the breeding fraternity recognizes the strength of their establishment. We are inclined to believe that a great many opportunities of this nature are overlooked. The natural assumption is that the owner will be inclined to place a high value on such a selection, but our observation is that when a breeder finds he has an opportunity to place a considerable number to one buyer he is invariably inclined to make the price attractive. Certainly the buyer has the advantage in any argument that may arise incident to the transaction, for the money is his to do with as he pleases until the deal is closed.

Purebred Sheep Profitable

Do not use a scrub ram this year. The difference in the price of the lambs which he produces will more than pay for the better ram. The use of a good sire is one of the recognized principles of improving livestock. This year when feed and labor are especially high and when future improvement must be considered, the advantages of using a purebred sire are still greater. Probably there is no other class of livestock in which the use of a purebred sire will be manifest more quickly than in sheep. A good ram when used on a flock of grade ewes usually will have greater ability to stamp his character upon the offspring than will the ewes.

Several years ago the University of Missouri College of Agriculture conducted an experiment to determine the advantages from the use of a purebred ram. One of the most striking features of this experiment was the difference in the price of the lambs produced. Two lots of 17 Western ewes each were used in this experiment. The two lots were as nearly alike as was possible to select them. A scrub ram was used on one lot, and a purebred ram was used on the other. The difference between the lambs, therefore, could be credited reasonably to the sires. The lambs sired by the purebred ram sold for \$7.35 a hundred weight, those sired by the scrub ram sold for \$4.50 a hundred. Furthermore, the lambs sired by the better ram averaged 3.5 pounds more a head at 3 months old than the lambs sired by the inferior ram averaged at 4 months old.



Kerosene Supremacy on Belt and Draw Bar

THE New Hart-Parr burns kerosene as successfully as a gasoline engine burns gasoline. That is the kind of tractor you want for belt and field work—the one that burns kerosene or distillate at no load, part load or full load without misfiring; the one that passes from no load to full load, or vice-versa, without missing and without throttling; the one with which delicate carburetor adjustment is unnecessary; the one that is noted for smooth running, bulldog tenacity in power and dependability. Absence of excessive carbon deposits, freedom from spark plug troubles is further proof that

The New **HART-PARR**

means kerosene supremacy for all tractor jobs on the farm.

- Specifications:**
- Power—Pulls three plows—30 HP on belt.
 - Motor—2 cylinder twin, 4 cycle, Valve in head, 750 RPM.
 - Motor Frame—Cast steel, one-piece. No bend, no twist.
 - Carburetor—New Dray kerosene shunt.
 - Bearings—S. K. F. and Hyatt.
 - Speeds—Two forward, 2 and 3 mi. per hour reverse.
 - Transmission—Selective sliding gear.
 - Radiator—Perflex shaft driven fan.
 - Lubrication—Madison-Kipp force feed.
 - Weight—5000 lbs.

Watch it at the coming demonstrations and fairs and you will be convinced.

Then, too, the New Hart-Parr is of sensible design—four wheels, twin cylinders, belt pulley on crank shaft, simple, with parts easily accessible. Its one-piece cast steel engine bed is as solid as a concrete base—no misalignment of gears.

We founded the tractor industry.

We also built the first successful kerosene burning tractors. The New Hart-Parr burns kerosene even more successfully than the old Hart-Parrs, so famous for years—it is the sum total of our years of experience. That is the kind of experience and reputation you want behind the tractor you must depend upon.

Write today for fully descriptive literature—be able to raise more to sell.

HART-PARR COMPANY, 590 Lawler St., Charles City, Iowa

Machinery for Hay Harvest

If the cultivation of corn were the only job to demand their time during the summer farmers might be able to adjust their work to meet the present labor situation without difficulty, but almost before the weeds are cleaned out of the corn, the wheat and oats harvests must have attention. The hay crops also follow each other in rapid succession. The alfalfa is scarcely cut before the clover harvest follows at a season when the weather often is unfavorable for taking care of hay. Hence it is important that rapid methods of handling these crops be used, not only to save time for corn cultivation, but to insure a good quality of hay. A big advantage is gained by having adequate hay machinery in first class condition. The barn fork is indispensable where much hay is to be handled. Luckily many Kansas barns are thus equipped, but the hay sling is not so common. The use of one of these slings, laid flat on the wagon rack before loading, saves much time in cleaning up the

last of the load, which otherwise must be pitched to the mow by hand.

By the use of the side-delivery rake and a hay loader the hay can be cured mainly in the windrow and then can be taken up by the loader, thus saving time and eliminating the labor of shocking and of pitching by hand. If it rains, the windrows can be turned again by the rake, all hand labor in turning the hay being thus avoided. A crew of 6 men and eight horses, with a good hay loader and an effective barn fork and sling properly used, will put in the barn from 2 to 3 tons of hay an hour.

Perhaps the fastest and most effective way of handling hay is by the use of the buck rake and some effective form of hay stacker. Such a combination not often is seen but where there is any great amount of hay to be put in stacks these tools will prove of great value. By this method the hay may be shocked or taken directly from the windrow, in the latter case eliminating the labor of shocking, which is very desirable, if weather conditions

are good. Five men and six horses will stack from 2½ to 3 tons of hay an hour with such an outfit, when handled effectively. There are various stackers on the market which work very satisfactorily, and there are also many homemade stacking devices in successful use in Kansas.

It is highly important that the haying crew be large enough to do effective work. Often it is difficult to hire enough extra labor to handle the hay crop to the best advantage. In such cases it may be advantageous to have good equipment which requires several men, and exchange labor with one or more of the neighboring farms. With good equipment and a full crew, the hay on two farms can generally be handled in less time than that of a single farm with a smaller crew and with less effective machinery.

Small Engine Pleases

A little 4-horsepower binder-engine delights D. H. Ehrlich, of Marion county, Kansas, even more than his

husky 10-20 tractor. And in the variety of things the small engine does, it puts the tractor to a disadvantage, too. Ordinarily the baby engine is stationed in Mr. Ehrlich's power house, where by a moment's attention it is made to run the cream separator, the feed grinder, the grindstone or Mrs. Ehrlich's washing machine.

"The engine has cut the time required for my washing in two," she told us, "and has taken all of the backache out of the job. The clothes need but little hand washing after the machine is thru with them." She allows about 15 minutes for the engine to wash what clothes may be placed in the machine at one time. At the time of our visit the washer in use consisted of a hand-washer fitted to operate with the engine, but Mr. Ehrlich recently ordered a real power-washer.

The engine also has been moved from the power house for the sawing of wood, and should the windmill fail in its duty the engine can be attached to the pump. If rainy weather should cause the binder bull-wheel to slip, too, this pocket-size engine can be made to run the binder, leaving the tractor to pull only the weight of the machine. It would be difficult indeed to think of a more convenient machine to have about the farm than Mr. Ehrlich has demonstrated his little engine to be.

Old Car Became a Truck

I bought an old 1914 model Ford car in which the engine seemed to be in good condition, then ordered one of the truck units and put it on. It took a day and a half to put them together. I have used this truck for a variety of purposes and find it quite handy to get around and do little jobs. I believe it would be profitable for every farmer to have a 1-ton truck to use around the farm. It seems to drive the same as any car.

One of the hauling jobs I did with my truck was to help move a lot of household goods and machinery this spring, a distance of 40 miles. We made 80 miles a day with it at a cost of \$2.75 a day for oil and gas. It took two days to make the round trip of 80 miles with a team of horses at a cost of \$5 a day for livery bill for the horses and hotel expense for the man. I would not be without a truck on this farm now that I have gotten so used to it.

August A. Nelson.

Present Meat Situation

To summarize the effect of the war on the meat situation, the National Food Administration makes this statement. Production has increased, and exports have increased both in actual amount and in relation to production. Beef has assumed a more important position in export. During the calendar year 1917, the total production of beef, veal, pork and mutton exceeded 18 billion pounds, of which slightly over 9 per cent, principally beef and pork, was exported. The average farm in the U. S. produced close to 3,000 pounds of meat last year.

Entitled to Know

Insist that your candidate for congress be for vigorous prosecution of the war, and that he back up his loyalty by something tangible in the way of a program of what he intends to do.

He ought to make it perfectly clear where he stands on war-profits taxes and taxes on big, and unearned incomes.

You are entitled to know what his remedy is for the constantly increasing cost of living.

To know what ideas he has about the railway transportation tangle and its solution.

How the nation is to deal after the war with the excessive profits of big business.

If excessive profits and enormous dividends, based on all the traffic will bear, is to continue to be our industrial policy.

He should demonstrate he possesses some statesmanship at a time when this nation was never in greater need of men of force and ideas who have vision and high principle.

FORD OWNERS NO MORE ACCIDENTS From RUTS or BUMPS

You Can Now Avoid Turning Turtle, Leaving the Road, Buckling and Upsetting and the Many Other Serious Accidents Due to Weak Steering Equipment

THE SPRAGUE WORM STEERING GEAR For Fords

Will Make Your Ford a Safer, Better Car

You know how dangerous it is when your Ford drops into the ruts. Turn the steering wheel and keep turning, but if the ruts are deep it does no good. You're lucky if you escape a bad spill. All high priced cars overcome this difficulty by use of the worm type steering gear. With a Sprague Worm Steering Gear, you can steer your Ford safely and easily out of ruts.

The Sprague Worm Steering Gear eliminates that jerky, insecure motion in the Ford; holds the car to the road; prevents locking over center. Being irreversible, it prevents bumps or other obstructions from cramping and upsetting the car. With this gear you can steer safely in mud and sand and on center-crowned road. It absorbs the vibration and strain on the arms—adding greatly to the pleasure of driving.

Easy To Attach

This new model (ball bearing—floating shaft) requires no adjusting. You can quickly attach it yourself, without special tools. Replaces old steering gear. Will outlast car.

Guaranteed To Satisfy

The Sprague Worm Steering Gear is guaranteed to satisfy you. If you don't like it, after a ten days' trial on your Ford, return it and your money will be refunded.

Don't wait for the accident to happen. Put this safe steering gear on your Ford. Your accessories dealer has it. Price \$15. Or send direct to us. Thousands in use. Illustrated literature free.

Get this worm gear now—Money refunded if it doesn't satisfy.

E. H. Sprague Manufacturing Co., Sole Mfrs., Dept. 33, Omaha, Neb.

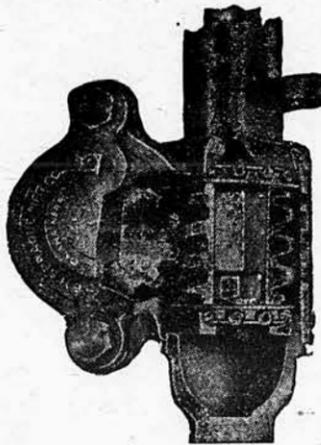


SPRAGUE WORM STEERING GEAR For Fords

attached to engine. No holes to bore. No adjusting.

SPRAGUE WORM STEERING GEAR

with part of housing cut away to show worm. Note ball bearings, also ferrule on end of steering rod (floating shaft).



FROM THOSE WHO KNOW.

We have scores of letters from users praising this gear. The following show what they write:

Knoxville, Tenn., 6-9-18.

Gentlemen:—I received the worm steering gear and have installed same on my Ford. Am highly pleased with it. Have taken orders for two the second day. I will remit for six gears shortly. You understand that I accept the agency for the device at this point. When I took the matter up with some of the Ford dealers here they tried to discourage me. It is O. K. Would not be without it. Consider it the best life and accident insurance policy that could be taken out on a Ford car service. R. L. BOWMAN.

Dayton, O., 6-29-18.

Gentlemen:—We received your Worm Steering Gear and put same on one of our one-ton Ford trucks which was very hard to steer, and after trying it out we drove over a road where a new sewer was built and found that we could let the steering wheel go and light a cigar without touching the steering wheel. I myself, have driven Ford trucks almost four years and every night my shoulders would be so sore that I could hardly move my arms after driving from forty to fifty miles every day. Today I have made the same trip with your Worm Steering Gear and my shoulders felt rested after my day's work. Your Worm Steering Gear has really made a pleasure car out of my Ford truck.

THE WOLF CREEK SOAP WORKS, per Wm. Schander.

Acme, Wash., 5-31-18.

Dear Sir:—I have driven over 3,000 miles since installing the Worm Steering Gear and have found it a wonderful help in driving a Ford as it makes it much easier. I am sure well pleased with my investment. Yours very truly, A. F. ELSBEE.

SAVE ON TIRES

National Highway Casings and Tubes at Factory Prices.

Written Guarantee With Every Tire. Quit paying high retail prices. National Highway non-skid casings and tubes, made from best live rubber; not seconds. Never known to peel or rim cut; built to give 6,000 miles or more.

Nat'l Highway	Non-Skid	Tubes
30x3	\$11.35	\$2.45
30x3 1/2	14.75	2.75
32x3 1/2	17.45	3.20
31x4	22.95	3.85
32x4	23.50	3.95
34x4	25.10	4.20

Shipped C. O. D. subject to approval, or 2 per cent off for cash with order. Order today from ad. Write for our prices on Goodyear, Firestone and all standard make tires. All tires have advanced. Take advantage of our prices. Write today—a card will do.

A. H. JENNINGS & SONS,
1806 N. 7th Street, Kansas City, Kas.

Save \$130

ONE TON FARM TRUCK



The Perfected Gear Driven Attachment converts a Ford Car into a 3000 lb. truck—Gear Drive—Steel Wheels—Tuffhill Springs. Must sell our stock. Regular Price \$425.00 factory. Your Price \$265.00 f. o. b. Kansas City. Only a few left.

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Parrett Tractors—Coal Oil Burners for Fords

EXPERT POULTRY BOOK FREE

Just off the press. Compiled by the biggest experts in America. Knowledge is power and wealth. This remarkable book will teach you the best and most modern methods of poultry raising—how to increase your egg production—how to make 100% more. A multitude of special articles. Send for this wonderful book today. Our book on Hogs, Cattle and Horses also sent free on request. The Stock Yards Veterinary Laboratory, Dept. 4, Kansas City, Mo.

Ground Limestone

For Agricultural Purposes

Write for price and FREE sample.

DOLESE BROS. COMPANY.
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Plant Eldorado, Kansas

WITTE

Kero-Oil Engines

Twice the Power at Half the Cost
Size 2 to 30 H.P.—Select Your Own Terms—Direct from Factory prices. Write your own order—Save \$15 to \$200. Prompt shipment. Big new catalog, "How to Judge Engines" FREE—by return mail. Postpaid.

Write **WITTE ENGINE WORKS**
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Money Back
if not satisfied on my New 90 Day Engine Offer

\$22.00 Sweep Feed Grinder | **\$28.00** Galvanized Steel Wind Mill.

We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.

CURRIE WIND MILL CO.,
610 E. Seventh Street, Topeka, Kansas.

OTTAWA KEROSENE ENGINES

Latest design. Durable, Powerful, Reliable, Massive. Built to do hard, heavy work—to give lasting service. Uses Cheapest Fuel. Pulls 25 to 50% more H.P. than rated. Shipped on three months' trial. Easy terms. Size 1 1/2 to 22 H.P. 10-year Guarantee. Book free—postal gets it.

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551 King St., Ottawa, Kan.

FREE BOOK

Cool, Stout Clothes

make farm work easier. Millions of men are now wearing

FITZ

OVERALLS

Unusually desirable. Tailored of genuine, blue indigo denim—strong, roomy, unshrinkable. 66 sizes. Satisfaction guaranteed. Your dealer can fit you. Special sizes obtainable in 24 hours from

BURNHAM-MUNGER-ROOT
Kansas City, Mo.

To Keep Eggs Fresh

Next winter there may be a shortage of eggs and we should begin to save them now. To keep them fresh is not as difficult as many imagine. First, get an earthenware jar or a big butter crock. Clean it thoroly and then fill with a mixture of 1 quart of sodium silicate, or "waterglass," as it is frequently called, and 9 parts of water which has been boiled to drive out the air present always in fresh water. Of course, any quantity needed can be made up in this proportion.

The eggs should be placed in the crock very carefully, and every egg should be clean, as well as newly laid. If they are badly soiled, do not try to preserve them. Use them for other purposes. Candle or test all eggs for cracks. If the waterglass cannot be obtained make a lime solution by dissolving 2 or 3 pounds of unslaked lime in 5 gallons of water that has been boiled previously and allowed to cool, and let the mixture stand until the lime settles and the liquid is clear. Place clean, fresh eggs in a clean earthenware crock or jar and pour the clear limewater into the vessel until the eggs are covered. After the eggs have been placed in the jar, be sure that the top layer is covered by two inches at least of the solution, and eggs can be added until the jar or crock is filled. Then paraffined or waxed paper can be tied over the top of the jar to keep the water from evaporating. The crocks should be kept some place in the cellar where it is cool and dry. Next winter you will find the eggs taken from this solution will taste as good as fresh eggs and far better than the average high priced eggs that average folks buy in the winter season and at a cost of only about 2 cents a dozen more than the farmer's low price in the spring and very early summer.

Summer Poultry Hints

Sour milk is valuable in any ration. Summer shade insures thrifty chicks. When range is limited spade up the runs or move the brood coop a short distance daily.

Spoiled or decaying flesh, if eaten, will surely cause limberneck. Burn or bury all dead birds.

Watch for head lice on the chicks. If found, rub top of head with a small piece of lard free from salt.

Clean, fresh water lessens disease. Filthy drinking water is the source of much trouble. Clean the drinking pans frequently.

If hens are lousy, rub a piece of blue ointment the size of a pea into the skin just beneath the vent and on the under side of the wings.

Mites are sure to accumulate if the droppings are not removed every week, and the roosts sprayed with kerosene emulsion or disinfectants.

No Eggs, When You Forget

An egg is composed of 65.7 per cent water, 11.4 per cent protein, 12.2 per cent ash and 8.9 per cent fat, and the composition is the same in California, Kansas and New York. The hen cannot adulterate her product. She cannot change the composition of her product. Neither can she make something out of nothing. Before she can lay an egg she must have the proper amounts of the various ingredients of an egg. If she has not enough of the right kinds of food to make an egg she waits until she gets it before laying. If your hens are not laying, make up your mind that they are waiting for something you forgot to provide.

Go easy with your spoon—more than 5 million soldier boys are dipping from that sugar bowl.

Kansas farmers will increase the world's bread ration by growing more breadstuff and eating less.

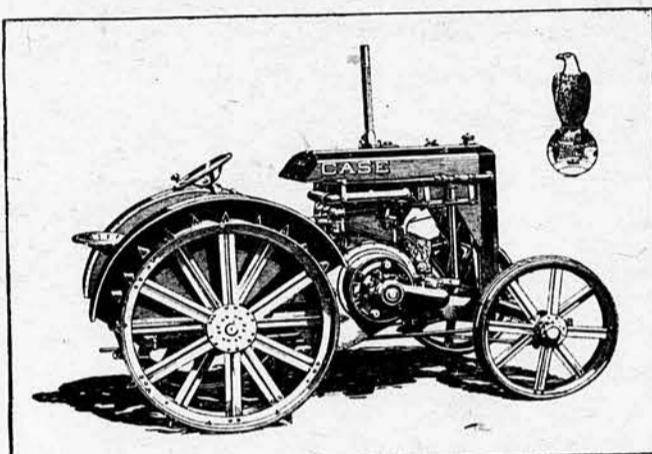
Poultry Profits Doubled

Breeding Males and Expert Advice Offered Free by World's Best Known Authority.

T. E. Quisenberry, Director of one of America's greatest Poultry Experiment Stations, Box 945, Leavenworth, Kan., sends his new bulletins on "Fighting Lice and Mites," and "Feeding Growing Chicks and Laying Hens," free, to all readers. His advice has helped thousands to prevent loss and increase profits by getting more eggs, better layers, saving feed, eliminating diseases, etc. Write Mr. Quisenberry today for free bulletins and explanation on how to get free cockerel and hatching eggs from American Poultry Experiment Station.—Advertisement.

Be Sure to Come to the NATIONAL TRACTOR Demonstration SALINA, KANSAS July 29-Aug. 2 Inclusive

The biggest Power Farming event of the year



—And Don't Fail to See the New Case 10-18 The Show's Great Sensation

Study this more powerful tractor, with all its tested and tried advantages. Watch its field work—how easily it handles a 2 bottom 14 inch plow at a depth of 7 or 8 inches.

And at the big Case Tent, examine the better-way Air Washer, which keeps all dust out of cylinders. Note that the air is strained through both screens and water.

Study the Syphon Thermostat, which controls the cooling circulation, keeping the motor hot. It prevents raw fuel passing by the pistons and diluting the oil in the crank case.

Hundreds of farmers are anticipating this splendid Tractor Show, and most are planning to spend considerable time learning about the Case Line. And it is the profitable thing to do.

More power is the vital subject nowadays—sufficient power for emergencies. That is why the Case 10-18 is supplied with plenty of reserve.

Although rated at 10 H. P. on the drawbar, this sturdy tractor, without undue exertion, pulls 1666 pounds easily at 2 1/4 miles per hour.

Under dynamometer tests in the field this tractor has developed a drawbar pull of 2300 pounds at normal speed, which is nearly 14 H. P., about 33% more than rated.

And best of all, this Case 10-18 burns kerosene with greater efficiency and economy.

Come and be acquainted with this and the other Case Tractors at the Show. Experts will be in attendance to answer all questions. The field and tent exhibits will be more complete than ever.

You can't afford to miss this big event.

CASE

KEROSENE TRACTORS



J. I. Case Threshing Machine Company, Inc.
Founded 1842 1268 Erie Street, Racine, Wis.

State Silo Campaign

A silo-building campaign will be conducted the last two weeks in July in the four eastern tiers of counties in Kansas, and a similar campaign will be conducted during the first two weeks in August in the four western tiers of counties. The wheat belt will be omitted as far as meetings are concerned as the farmers will be so busy putting in the wheat that they will have little or no time to devote to the building of silos. This work will be directed by Prof. Edward C. Johnson, Dean of College Extension in the Kansas State Agricultural college.

This silo campaign will be conducted primarily thru the county agents, farm bureaus, and councils of defense, and Dean Johnson is asking every county agent to select a committee of at least three men as a silo committee, to be appointed by the president of the farm bureau, to help the county agent to conduct the campaign.

Dean Johnson is asking every county agent in the eastern section

named to arrange a silo tour for the week of July 15 or July 22, and every county agent in the western section to plan for the tour for the week of August 5 or 12—devoting two days to the tour, one day for every section of the county. Not to exceed six stopping places on farms where there are silos, are to be selected for a day's tour and a carefully planned schedule will be prepared. Arrangements will be made for the farmer at every point where a stop is made, to give his experience with the silo and tell of the good and bad points of the type of silo he has. Some man who has been especially successful in feeding silage to beef cattle and some man equally successful in feeding silage to dairy cattle will make the tour each day and give their experiences at some of the points visited. Specialists from the college will be available for some counties for these days, but will be sent only where requested.

All who are interested in this campaign and desire information on building silos should write to Prof. E. C.

Johnson at Manhattan, Kan., for bulletin on this subject.

Why Not Buckwheat Cakes?

Buckwheat is a good war crop for a large number of Eastern Kansas farms. It takes only 8 to 10 weeks to mature, requires but moderate tillage, fertilization and care and yields well. Farmers who could not get their corn planted on time, or whose corn failed to do well, as a result of poor seed and dry weather, or who have odd fields in which they have been too busy to plant a spring crop, should find buckwheat a profitable venture.

A successful buckwheat grower makes the following recommendations for the growing of buckwheat. Seed in the latter part of June or early July or about 10 weeks before the first autumn frost, at the rate of 1 bushel an acre. The ordinary grain drill may be used, or it may be broadcasted and covered with the harrow. The Japanese has a large dark brown to black seed, grows a large plant, and is con-

sidered slightly superior in yield to other varieties. Buckwheat is best adapted to a well-drained, fine, sandy loam soil. It will succeed on a poor and badly tilled soil, but responds to a well prepared seedbed in a good state of fertility. Too much nitrogen causes the crop to lodge.

Buckwheat may be cut with a binder and set in long shocks without caps. Because the straw does not cure readily, it is usually threshed directly from the field.

Orchard Cover Crops

Clover, alfalfa or any other crop suitable for hog pasture makes an excellent orchard cover crop. The orchard which is in sod should be mowed two or three times a year and the crop that is mowed down should lie on the ground as a mulch under the trees.

Cover crops keep the orchard soil from washing, prevent burning out humus, provide profitable pasture for hogs, calves, poultry and small stock, and if the orchard is mowed frequently and kept clean, they provide an excellent mulch and soil cover for the trees. A neglected sod usually, sooner or later, ruins the orchard. Grass, weeds and sprouts grow up and check the branches of the trees. If the crop is not mowed, weeds evaporate too much water and the fruit trees suffer from drouth during the heat of summer. Insects and fungous diseases thrive in such neglected orchards.

If the orchard is pastured to small stock it should not be pastured too close. Enough growth should be made by the cover crop to make a good mulch when it is mowed. This keeps the orchard clean, allows the fruit to color and mature properly, facilitates getting thru the orchard to gather the fruit and makes the fruit crop look more valuable to the prospective purchaser of the crop who visits the orchard. It is difficult to get pickers to work in an orchard overgrown with weeds and brush.

A Good Fly Repellent

In reply to an inquiry from a subscriber to the Farmers Mail and Breeze for a good fly repellent Dr. R. R. Dykstra of the Kansas State Agricultural college suggests the use of the following mixture:

Add 2 cakes of laundry soap to 3 gallons of water and boil the mixture until the soap is dissolved. Next add very gradually and with constant stirring, 1/2 pint of fish oil and 1/2 pint of kerosene. Then melt 1 1/2 pounds of rosin over a slow fire or in a double boiler and when the rosin has melted add it to the original mixture. This repellent may be applied with a brush or sprayer as often as may be necessary. Bulletin No. 131 of the U. S. Department of Agriculture entitled, "Repellents for Protecting Animals from the Attacks of Flies," gives a great deal of valuable information on this subject.

Silage for Cattle Ration

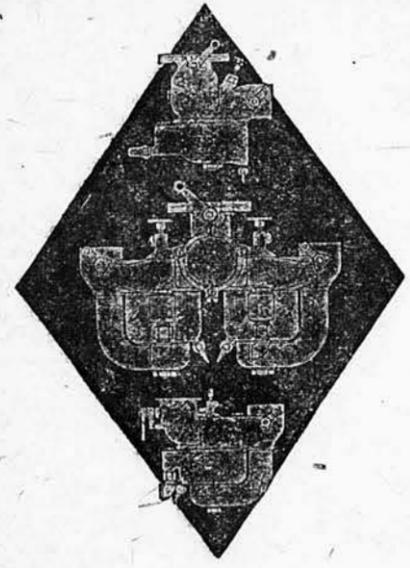
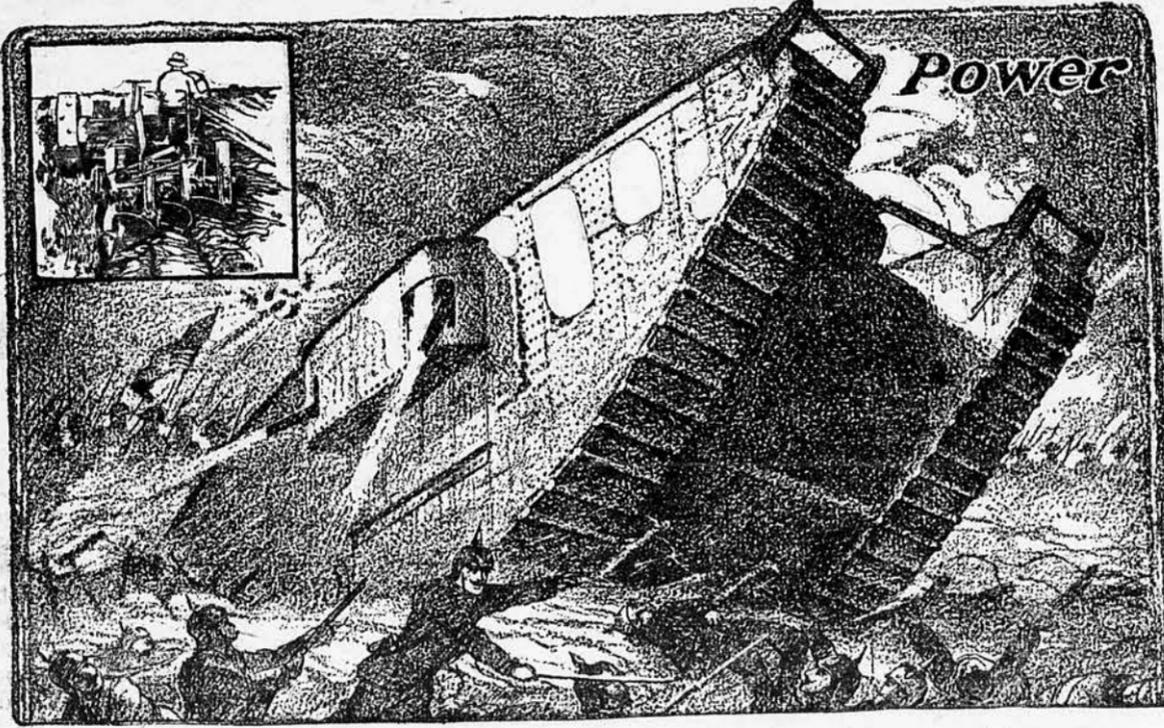
With the increased cost of finishing beef cattle in recent years, the tendency to utilize more roughages and less concentrates is increasing. The introduction of corn silage in rations for fattening cattle is producing a comparatively low-priced roughage. Its maximum use and proper combination with other feeds is of vital interest to cattle feeders. It has been found by tests conducted at several experiment stations during the last three years that steers fed no corn other than that contained in the corn silage made the cheapest gains, and produced a satisfactory grade of beef.

SPECIAL TEN DAY OFFER

Our Big Weekly on Trial Ten Weeks for 10 Cents

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.

KINGSTON CARBURETORS
RECOGNIZED STANDARD FOR TRACTOR USE



The strongest selling point of the tractor is its suggestion of sturdy strength. The man who buys a tractor is buying power, and the only successful tractor is the one which delivers that power at the plowshare. This is the reason that most of the successful tractor manufacturers specify KINGSTON carburetors.

The experienced manufacturer knows that with a KINGSTON carburetor he is going to get full efficiency out of his engine. He knows that he is going to get a maximum of power at a minimum of machine wear. He knows that his tractor is a better tractor because it is KINGSTON equipped.

Dealers who are following the trend of the times are turning more and more to KINGSTON carburetors. They realize the tremendous sales advantage in them. They are coming to know that the tractor with the KINGSTON carburetor is the tractor that gives results. Let us tell you more about it.

Booklet Sent on Request

Byrne, Kingston & Co. Kokomo, Ind., U.S.A.

BRANCHES: New York City, 1733 Broadway; Chicago, 1430 Michigan Avenue; Detroit, 870 Woodward Avenue; Los Angeles, 501 W. Pico Street; Boston, 15 Jersey Street.

We will have an important exhibit in Salina.
Let us tell you all about THE KINGSTON.

FARMERS' EXCHANGE

The Farmers-Mail and Breeze will be glad to run free notices of farmers who wish to buy farm machinery, or who have machinery for sale or trade. There is a machinery shortage and it is essential that the best possible use should be made of the equipment available.

For sale: An Avery 8-16 tractor and three bottom Grand Detour plow. George S. Marshall, Basehor, Kan.

For sale or trade: One 18-35 Titan oil tractor. Engine is good as new. I will accept good motor truck in exchange. Homer Thayer, Fairview, Kan.

For sale: A 10 horsepower Field-Brundage portable engine. H. L. Dukelow, Hutchinson, Kan.

For sale: One 15-30 Rumely Oil Pull tractor and five bottom Rumely plows with self guide, and tank wagon. C. A. Rhodes, Ingalls, Kan.

For sale: A 10 bottom John Deere engine plow, disk plow, Case threshing outfit with 25 horsepower engine, 36 by 56 separator, water tank, cook shack, and also a model 31, Buick two-seated motor car. A. B. Latham, Minneola, Kan.

For trade: A farm of 450 acres in Northeast New Mexico for a good oil burning tractor with disk plow and disk harrow outfit. A. B. Ellis, Pasamonte, New Mexico.

For sale: One 8-16 Mogul tractor and one Dodge touring car. Both are in good condition. Virgil F. Sharp, Healy, Kan.

For sale or trade: One 15-30 Huber gas or oil tractor in good running order. J. C. Fleming, Stockton, Kan.

For sale: A 10 horsepower Stickney gasoline engine. We now use electricity from power plant is our reason for selling. Farmers' Elevator Co., Assaria, Kan.

For sale: New Erick Grain separator. I am willing to exchange for smaller machine. Edward Hyatt, Hazelton, Kan.

For sale: One farm wagon, set of work harness, driving harness, buggy, saddle and one International ensilage cutter of 8 ton capacity. C. A. Gustin, Keats, Kan.

For sale: One 30-90 Russell simple engine, Universal boiler with supply tank; one 36-60 Russell separator and extension feeder, complete. G. W. Pennington, Montezuma, Kan.

For sale: A Ward tractor equipped with 15 horsepower Cushman engine. Price, reasonable. C. J. Creighton, Morrowville, Kan.

For sale: A 36-56 Advance separator, complete with all necessary belts and equipment. I also will trade it for a John Deere, Deering or McCormick binder, or for a Ford motor car. Bert Egan, Edna, Kan.

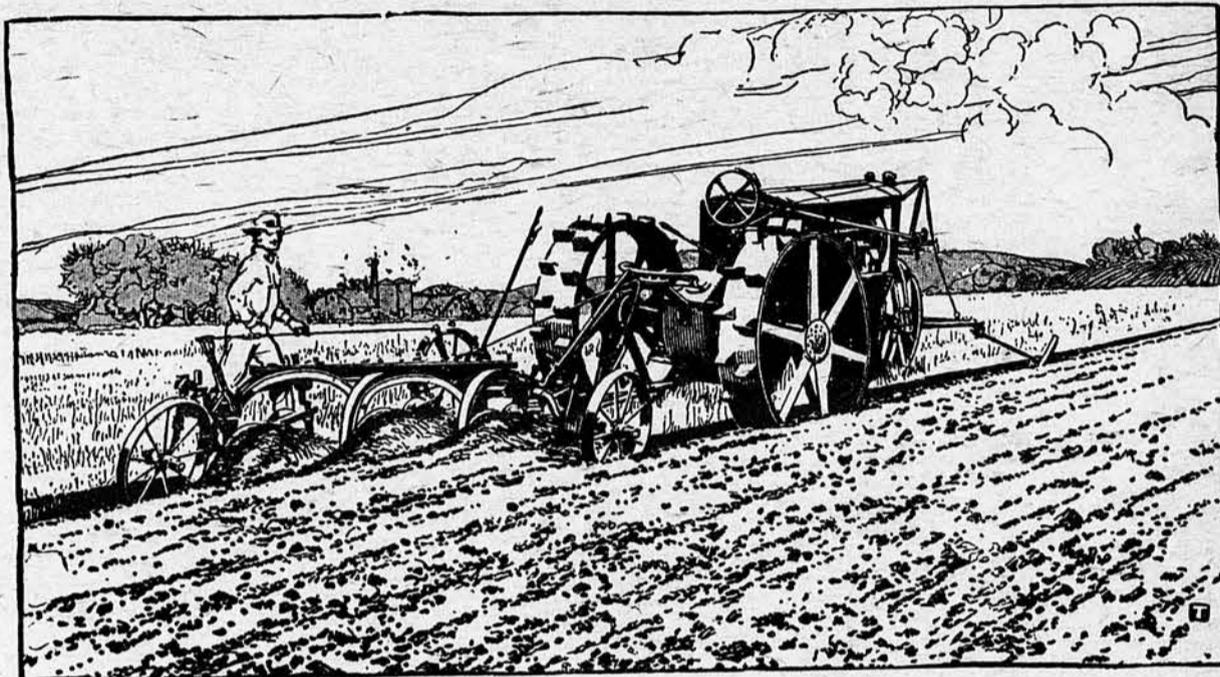
For sale: One Dempster rotary well auger with full equipment. Price \$300. J. A. Chaffin, Glade, Kan.

For sale: One 12-25 Avery tractor, and three bottom plow. A. E. Powers, Axtell, Kan.

Save All the Wheat

Probably more grain is wasted at threshing time from failure to clean up the unthreshed straw at the end of a setting than from any other cause. Just as much care should be taken in cleaning up all this loose grain that accumulates around the machine as is taken with the rest of the job. Even with the best of care a large amount of unthreshed straw will collect around the feeder in the course of a day's work. If the straw is very dry, much grain will shatter from the heads as it is being pitched from the wagons or stacks to the feeder. Small piles of chaff and straw which contain a certain amount of grain will accumulate at various other places around the thresher, and the machine should not be stopped at the end of the job until all this is pitched into the cylinder and carefully rethreshed.

Wallis Tractors and J. I. Case Plows



On Exhibition at the

SALINA TRACTOR SHOW

Salina, Kansas, July 29 to August 3, 1918

The two important things to see at the Salina tractor show are Wallis Tractors and J. I. Case Plows. Each is the leader in its line—bought, used and endorsed by farmers whose success qualifies them to be recognized as experts on farming.

The Wallis broke all tractor records in a spectacular manner as far back as 1915, when it journeyed overland under its own power from Cleveland, Ohio, to Fremont, Neb. This endurance test was equal to a year's farm service and at once established the sturdy Wallis as a tractor that would stand punishment.

At the Fremont show two years before, the Wallis, using J. I. Case light draft plows, pulled four bottoms straight through a water-filled depression instead of filling the depression with straw and lifting the plows across as others did.

You can look for the Wallis to make new records this year because it is built for practical service under all conditions.

The Wallis is the only tractor delivering 74% of its power to the draw bar. This means that only

one-fourth of the power is required to pull the tractor. The other three-fourths pulls the plows or other implements. This is 50% more usable power than ordinary tractors deliver. It is due to the extreme light weight of the Wallis and to its close-built, completely-enclosed transmission, which saves a vital percentage of power usually wasted. The Wallis is truly economical because it gives more horse power per dollar of cost and per gallon of fuel. You get more years of service from the Wallis. See it at Salina. Watch it work. Then judge for yourself.

Attached to the Wallis and to many other tractors, you will find J. I. Case Plows. We have been making plows for over 40 years. We have established a supremacy which has not been shaken. J. I. Case Plows are light, even draft which makes pulling easy. They are built of best plow steel and by men of long experience, who have specialized on plows for years.

A J. I. Case plow and a Wallis tractor will increase your farm profits—reduce your labor costs. See these two predominant leaders at the Salina Tractor Show.

JULY 29 TO AUGUST 3, 1918

J. I. Case Plow Works

Sales Agents for Wallis Tractors

Branches at

Dallas, Texas
Oklahoma City, Okla.
Omaha, Neb.

Kansas City, Mo.
St. Louis, Mo.
Indianapolis, Ind.

Baltimore, Md.
Minneapolis, Minn.

Racine, Wisconsin





Tractor Tillage Tools

See Them in Action at Salina

P & O Little Genius Tractor Plows

The ideal plow for light tractors. Power Lift, in and out of ground. IXL Bottoms with Quick Detachable Shares. Made in 2 and 3 furrow with 12 or 14 inch bottoms, and 4 furrow with 14 inch bottoms. Hitch to any tractor. High level lift on all three wheels. Tractor easily controls plow from tractor. Pin break hitch. The P & O Little Genius is making good everywhere. Tractor demonstrators like to pull it because it is easy on the tractor. Come to Salina and see it in action.

P & O Mogul Tractor Plows

P & O Moguls in 4, 5, 6, 8 and 10 furrow sizes, with 14 inch IXL Bottoms and Quick Detachable Shares. A size to suit your power. For large farms and ranches, the Mogul is the plow. Positive power lift gives tractor perfect control. Independent lever for each bottom, easy to adjust depth, raise one bottom to clear an obstruction, ease up on tractor when ascending steep grades, run one bottom shallow in opening lands, and a hundred other splendid features. If you want a large plow you want a P & O Mogul Power Lift.

P & O Tractor Harrows

Double disc harrowing with a P & O Tractor Tandem Disc Harrow means economy of time and power, and increased crop production because of excellent tillage. Farmers are now aware of the decided advantage of double discing. This harrow enables them to get the same results once over as they have been getting by going twice over—better results—because they pack the ground less, and save time and labor. Can be used with any tractor. Made in 8 and 10 foot sizes with 16 inch discs.

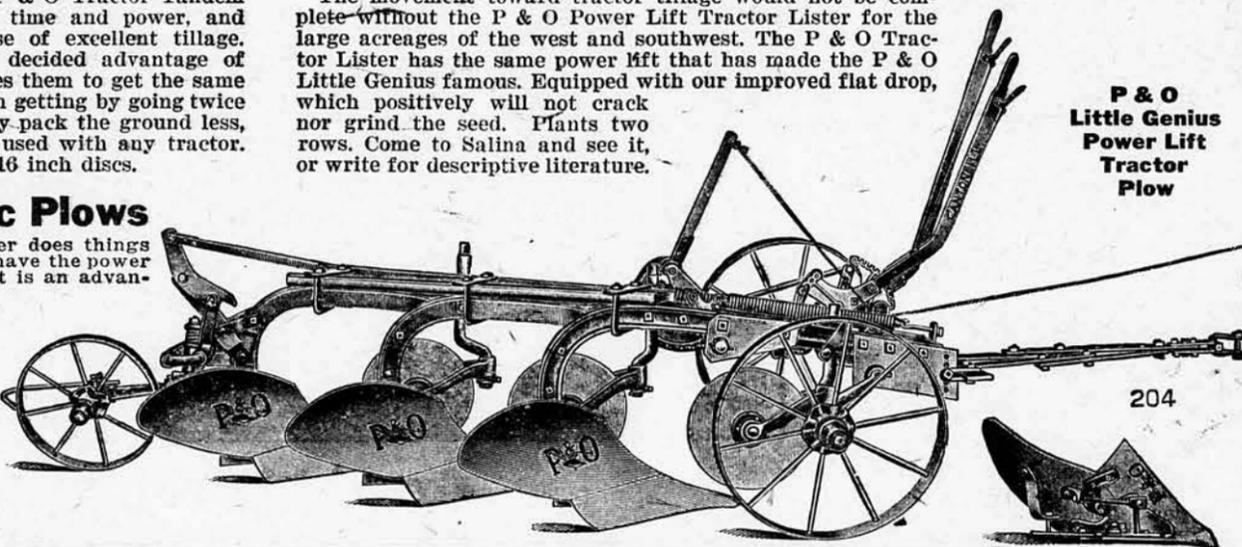
P & O Tractor Listers

The movement toward tractor tillage would not be complete without the P & O Power Lift Tractor Lister for the large acreages of the west and southwest. The P & O Tractor Lister has the same power lift that has made the P & O Little Genius famous. Equipped with our improved flat drop, which positively will not crack nor grind the seed. Plants two rows. Come to Salina and see it, or write for descriptive literature.

P & O Tractor Disc Plows

The Parlin & Orendorff Co. never does things by halves. If it is an advantage to have the power lift feature on moldboard plows, it is an advantage on disc plows. Here is a dandy disc plow equipped with the famous P & O Little Genius power lift device. Made in 3 and 4 furrow sizes, and equipped with 24 or 26 inch discs. Will plow 10 inches deep. Can be used behind any tractor.

Ask for Special Circular "P & O No. 1 Power Lift Disc Plow."
Parlin & Orendorff Co.
 Canton, Illinois
 KANSAS CITY, OMAHA, ST. LOUIS
 OKLAHOMA CITY, DENVER



P & O Little Genius Power Lift Tractor Plow

204

Tractors Save Money

Washington county, Oregon, saved \$3,800 by using a tractor on highway work, and the county has better roads than at any time. Bids were asked for on the grading of a 3-mile stretch of road. The lowest bid was \$4,500. The county officials rented a tractor outfit and tho it was necessary to pay \$55 a day for the outfit, it worked so efficiently and economically that the job was completed at a cost of less than \$700—a clear saving of \$3,800, or enough to purchase a modernly equipped tractor. Had the county owned a tractor, the cost of this 3-mile improvement would not have exceeded \$200.

Lane county, Oregon, has had considerable tractor work done in its highway improvement program. Officials there declare that they can do \$2 worth of work for \$1 with their tractor outfits. When they have fully organized their tractors, they say they can do \$3 worth of work for \$1.

Before Lane county owned its tractor, rock had been hauled by motor truck on contract at a cost of 35 to 45 cents a yard. Later it was necessary to pay 65 cents a yard. When the tractor was put on the job, it hauled easily four 8-yard wagons, loaded with crushed gravel weighing 2,500 to 3,000 pounds a yard. The average haul was 3 miles and the tractor train made three round trips a day, moving the gravel at a cost of approximately 20 cents a cubic yard—less than one-third the motor truck cost.

Right at the outset, the tractor began breaking records in Lane county. It was unloaded at Eugene, and in order to give the citizens an opportunity of seeing it in action, it was hitched on to a scarifier. In less than four hours it scarified a mile of old, hard, dry macadam 16-foot highway to a depth of 18 inches. Experts who observed the work said it would have taken four teams four days to do the same work, and that the tractor had saved the county at least \$100—at the rate of \$25 an hour.

The next day the tractor pulled a heavy 20-foot grader over the road

that had been scarified. The roadbed was, for the most part, either a black or red adobe, with mineral matter in it, dried as hard as bricks. The tractor graded 3 miles of this road 44 feet wide, in eight days, an unheard of feat in horsepower days.

The tractor, hitched to a single rooter plow, was used to tear up one-half mile of gravel road. This was done in eight hours, at a cost of \$15. Previously, eight horses were necessary to do the same work, it taking them 20 hours time, at a cost of \$44. The tractor, working at but one-tenth of its capacity, saved the county \$29 on this small piece of work.

The tractor moved a rock crusher up a 13 per cent grade, 16 miles, in six hours. Formerly from six to eight horses were necessary, and it usually took them 16 hours to do the work.

In the Southern section of Lane county, it was desired to make a highway improvement. The county engineer had estimated this would cost about \$600, using horses and men. The tractor outfit did the work at a cost of \$142.50, making a saving of \$457.50.

The blade grading machine demands more power for efficient and economical results than any number of horses can give. Most horse graders are so light they will not handle a heavy

furrow and when the grader is heavy enough to do this it is too heavy for horses. The tractor has power to pull the grader to proper depth to insure a good grade, and makes ditches straight, because of its steady, certain pull.

It is not any wonder that taxpayers are demanding tractor outfits on their roads. With 1½ million horses and mules gone to war, there is a horse shortage in road building operations. The tractor answers this problem, and its slogan pleases every citizen who pays taxes, for it is "Not more money for the roads, but more roads for the money."

Tractor on Diversified Farm

BY FRANK M. CHASE

It is unsafe to say that the tractor is ill-adapted to any kind of farming, for instances are constantly arising of its successful use in almost every practical kind of farming. Frequently one hears that the tractor is all right for the all-grain farm, but that it is a poor investment for the diversified farm. The experience of Wilson Shelley of McPherson county, Kansas, refutes this theory. This farm affords a very good example of diversified agricultural op-

erations, all of which are carried on successfully, and the tractor helps to make a success of them. Of course I do not mean to say that the farm could not be carried on successfully with horses or mules, but Mr. Shelley is too good a farmer to invest in an 18-36 horsepower tractor this summer if he could do better without it. This, it should be noted, is not his first experience with a tractor, for he bought this machine after having used a 13-23 tractor three years.

On his farm containing 260 acres Mr. Shelley feeds cattle, raising the crops to finish them, and devotes a considerable acreage to the raising of purebred seeds. Thus his farming operations are considerably more diversified than is the average of Kansas farms. He is a graduate of the Kansas State Agricultural college, and is known as one of the progressive farmers of the state. He has had very good success in growing Sudan grass for seed. Last year he made about \$100 an acre net with this crop. He also produces purebred grain seed, making a specialty of Kanred wheat.

As a raiser of purebred seeds Mr. Shelley is naturally more interested in seeing that his crops are put in the ground in the best manner possible than he would be if growing them only for the elevator or for feeding. His investment is heavier, and because of the higher returns for his crop he can afford to give the seedbeds extra preparation. And in giving his soil this extra preparation he finds the tractor of advantage.

Maple Sugar Production

The maple sugar crop of 1918 in the 13 states which include nearly all the producing region, was 13,270,900 pounds, and the sirup production was 4,905,200 gallons. The total of sugar and sirup, counting 1 gallon of sirup as equivalent to 8 pounds of sugar, would be 52,512,500 pounds of sugar. The production in 1917 was 10,838,650 pounds of sugar and 4,286,100 gallons of sirup, both being equivalent to 45,127,400 pounds of sugar.

Every productive Kansas farm is a dynamo of victory.

If your subscription is soon to run out, enclose \$1.00 for a one-year subscription or \$2.00 for a three-years subscription to Farmers Mail and Breeze, Topeka, Kan.

Special Subscription Blank

Publisher Farmers Mail and Breeze, Topeka, Kan.

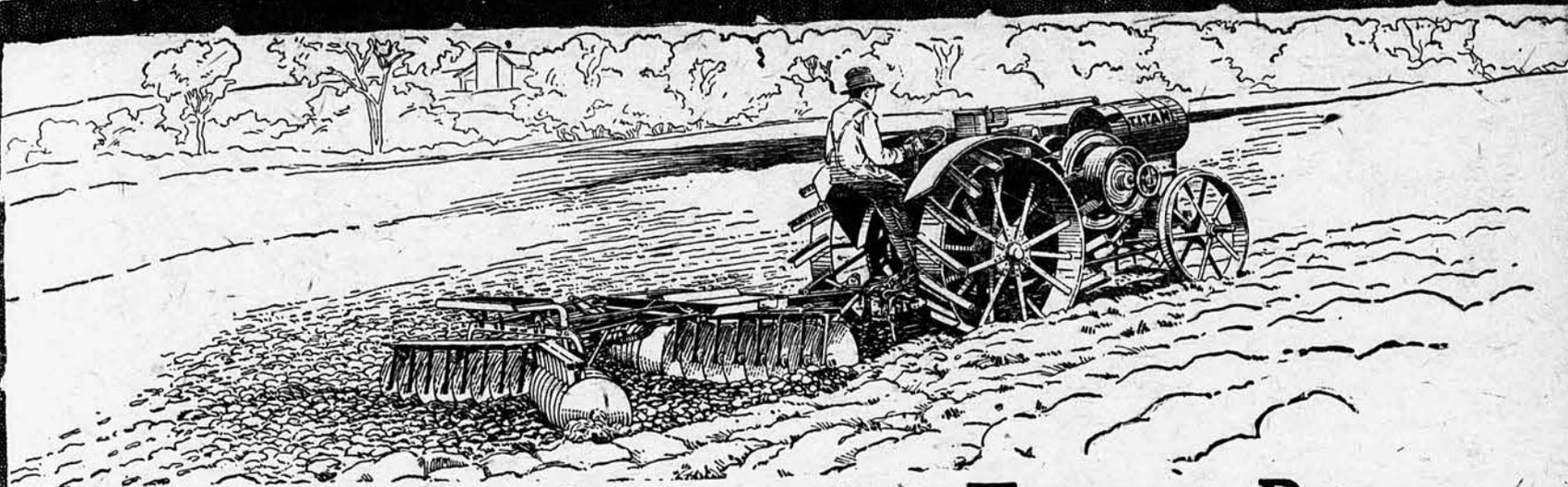
Dear Sir—Please find enclosed \$1.00, for which send me the Farmers Mail and Breeze for one year. \$2.00 three

My subscription is (Say whether "new" or "renewal")

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Pointers for Prospective Tractor Buyers

Successful Tractors are Developed Through Actual Work on Many Farms

YOU MUST SETTLE THE TRACTOR QUESTION

Your business is farming, which requires implements, machines and power. The business of The Harvester Company is to supply you with just the machines and power you need for your work. Just now we are both deeply interested in the problem of a safe, dependable, economical farm power.

You may have a tractor. If not, you are probably needing one. Practically every farmer is now in one class or the other. We cannot properly analyze your individual power needs without seeing your land or talking with you, but we can point out some things that will help you in making the wisest decision when you finally select a tractor.

Our interest in your decision goes deeper than you may think. No matter what tractor you buy, sooner or later you will undoubtedly hitch it to some of our machines. It's the machines that do the farm work, and they can do it properly only when the power is right.

POWER AND POWER MACHINES MUST BE ADAPTED TO ONE ANOTHER

As you know, The Harvester Company pioneered the harvesting machine business, beginning about seventy-five years ago. In the meantime they have produced many other necessary field and belt machines. No one yet has suggested a better way to harvest grain than with the binder they developed through years of experience. Many of the machines you are using owe their present efficiency to that same long experience.

Isn't it logical that The Harvester Company with all this knowledge of farming should know what kind of tractor would best operate all your machines? Who, would you say, could be in better position to supply the right kind of power, than a concern that has for so many years made both farm machines and tractors?

PRODUCED TRACTORS YEARS AGO

No world war or sudden demand caused The Harvester Company to develop a tractor. The farm power and labor conditions which the war has only intensified existed years ago. Knowing these conditions The Harvester Company started producing tractors over twelve years ago. Since then, in peace and war, they have never relaxed their efforts to develop tractor power to a point where most farmers could use it profitably.

THE VALUE OF EXPERIENCE

Every power unit must be designed for the particular kind of work to be performed. The automobile is well designed with lots of power, but useless for plowing, harvesting and threshing, because it is not hooked up right for that work. A tractor may be well designed as a power unit for field work, and still not be hooked up right for belt work. Again, it might be well adapted for belt work and very poor for drawbar work because it could not stand the field strains that wreck every machine not especially built to stand them. A successful tractor is not only designed especially for the work to be done, both field and belt, but must be economical in operation and one that farmers can keep in running order. Every part liable to damage or wear must be easy to get at for adjustment or repair.

The Harvester Company's years of experience with tractor power and both belt and drawbar machines has enabled them to provide a most successful and economical power for all purposes. Without farming experience no firm can be sure that its tractor will be successful. Real tractors are developed by wide experience with both the tractor and the machines it must operate. Many of their most valuable qualities are hidden beneath the surface and only show up when the work is extra hard. Behind every International Harvester tractor stands twelve years' tractor experience, not on a draftsman's table or in a pattern shop, but in the factories and on the thousands of farms where International Harvester tractors have been in use for years in the United States, Canada, and twenty-five foreign countries.

MORE THAN A TRACTOR

As soon as a tractor is sold by many concerns, the deal is closed. Everything you get is in the tractor. They have nothing more to sell.

We sell a complete line of farm machines. Every time you need a machine, we have a chance to do business with you. Every time we sell you a satisfactory machine, we have that much better chance to secure your future business.

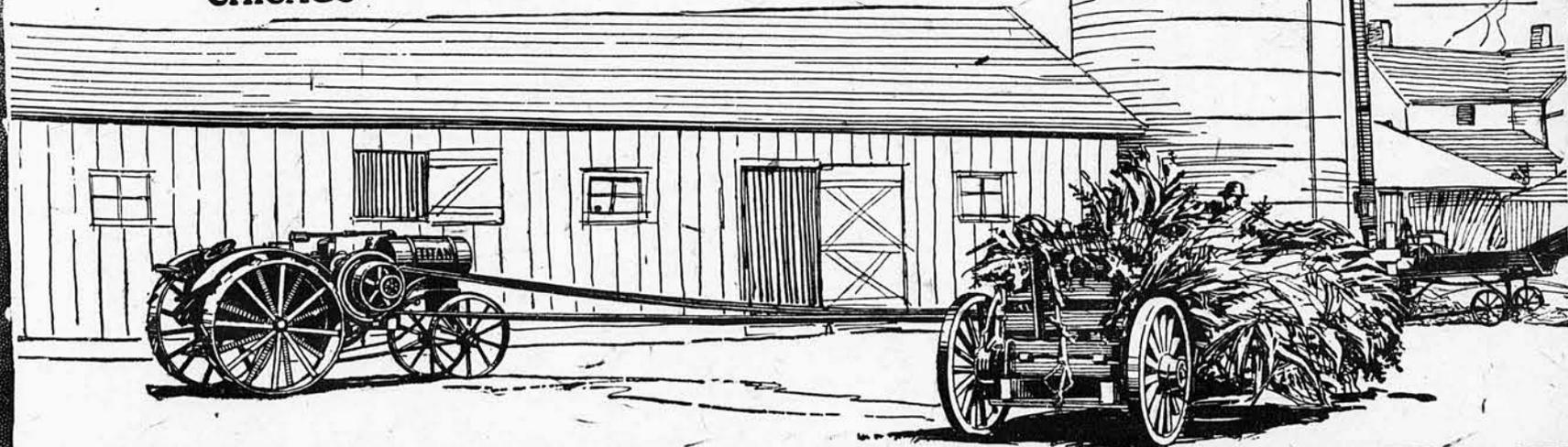
The concern that sells tractors only can rest content with one sale—satisfactory or not. We cannot. We want to sell you other machines after you have purchased a tractor. If our tractors should not live up to our promises, we would lose not only your tractor business but your confidence in the other machines that we sell. In this respect we have more at stake than most concerns selling farm machines.

To give satisfaction to our customers, both at the time of the sale and after, is a vital matter with us. In order to do it, we have developed a distributing organization of ninety branch houses each carrying a complete stock of machines and repair parts, backed up by a dealer's services unequalled by any.

THE NATIONAL TRACTOR DEMONSTRATION

Come to Salina, Kansas, if you possibly can, July 29th to August 3rd. The National Tractor Demonstration at Salina this year will be far different from the usual plowing demonstration. All kinds of work for which the tractor is adapted will be demonstrated. This will be your first and only chance this year to compare every type of tractor in every kind of farm work. It will also give you an opportunity to see the value of the suggestions we have made above.

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



See the National at Salina! Here are Election Results

All of the Breed Clubs Now Have New Officers

BY BERTHA G. SCHMIDT, Secretary



National Model F, 12-22 H.P., Three-Plow Type

If You Are Coming to Salina—

You are asked to watch the performance of the National Model F first, last and all the time. It will convince you that every claim we make for this simple, durable and practical tractor is true—and that it truly is the tractor "farmers need and want" for all power farming purposes. National Tractors are time tested—seven years successful performance built into them—and you are always protected by the broad, binding National Guarantee and the strong financial backing of the manufacturers.

IF YOU CAN'T COME—Then send today for catalog which gives a full list of the advantages to be gained by using the National. The National has fewer wearing parts—all gears are steel and run in oil—no gears in traction wheels—all working parts protected from sand, grit, dust and weather.—Six speeds forward and reverse—burns kerosene at all loads—costs less—weighs less—women and boys run them with ease. No need of a course in tractor school, or "experts" or "skilled mechanics." The catalog explains.

NATIONAL TRACTOR CO.
806 Walnut St., Cedar Rapids, Ia.
Gentlemen: I am.....coming to the Salina Tractor Demonstration and would like your catalog. I am interested as.....Farmer.....Agent, for following territory:

Name.....
P. O. State.....

Clip the Coupon Or Write for Catalog

NATIONAL TRACTOR CO.
806 Walnut Street
CEDAR RAPIDS, IOWA

THERE ARE so many things happening in the Capper Poultry club these days that it's difficult to keep up with them. The election has taken place and every breed club now has new officers. And let me tell you right here that breed clubs are going to be a very important factor of the Capper Poultry club this year—much more important than last year.

Every officer of the club will have some definite duty to fulfill and those to whom these duties have not already been assigned will hear about them before long. As the Plymouth Rock Breed club is the largest, I shall give the names of its new officers first. Here they are: Lillian Brun, president; Marion Gregg, vice president; Anna Greenwood, secretary-treasurer; Myrtle Buckingham, assistant secretary; Lenore Rosiska and Catherine Peltier, directors; Ollie Osborn, secretary of the Barred Rock division; Lucile Lemons, secretary, Buff Rocks; Margaret Schopper, secretary, White Rocks.



Evelyn Bowers

I've already told you that the Atchison county girls won the special county prizes but I didn't tell you that I attended their meeting held in recognition of this event. It was at the home of Ruth Banks. Members of both the old and new club were present; Bill Brun, county leader of the pig club was there, too, and helped to make the meeting a lively one. I only wish I had space to tell you about all the fun we had playing games, the excellent program which the girls gave and that never to be forgotten delicious chicken dinner, but I must hurry along.

Several matters of special interest came up at this meeting. One was the adoption of the new yell, which follows:

Rah, ray, ree!
Atchison county girls are we!
We're raising chickens with a will
To help the boys whip Kaiser Bill.
With Capper, Case and Schmidt,
Mothers, chicks and pep and grit.
We'll go over the top,
Make the other counties hop.
Rah, ray, ree!

You remember, too, I told you about the death of Franklin Brun, a member of the thirty-fifth division of the American Expeditionary forces. Franklin was a brother of Lillian Brun, leader of the Atchison county club, and at the meeting these resolutions were adopted:

"Whereas, it has pleased Almighty God in his divine wisdom to call unto Himself the spirit of Franklin O. Brun, while on his way to France to assist in striking the blow for world-wide democracy,

"Therefore, be it resolved that we, the members of the Atchison County Capper Poultry club tender our sympathy to his sister, Lillian, our leader, to Mrs. John Brun, our associate member, and to his father and brothers, in this their bereavement.

"And while we submit to the will of Him who doeth all things well, we honor the members of the Brun family for their loyalty and spirit in giving their sons to their country. It may be rightfully said of them: They answered the call of the colors; they proved themselves loyal and true."

The First Prize Winner's Story

I promised to let you read the very interesting contest story written by Evelyn Bowers of Linn county, winner of the first prize in the contest, didn't I? Well, here it is. I'm sure you'll agree with me that it's a good one.

"When the time came for me to purchase the eggs from which to hatch my contest chicks, my father, who was working for an uncle living at Oak, Neb., wrote me he could get eggs from a purebred Rose-Comb Rhode Island Red flock of the same strain that took sweepstakes at the World's Fair at San Francisco.

"I had at first made up my mind to raise Brown Leghorns but this strain sounded good to me so I told my father to get the eggs. They arrived April 7 and three days later were in the incubator. When they were about hatched a thunder storm came up and I actually believe it must have taken its spite out on the eggs. Out of 136 eggs set, only 58 chicks were hatched and two of them were cripples. The cripples were killed, leaving 56 healthy chicks. My sister took half of these and I had only 28. The eight extra ones I gave to mother.

"My chicks hatched April 31. They were fed when 48 hours old. Their first feed consisted of mixed hard boiled eggs, chopped fine, and sand. A couple of days later oatmeal was added to this ration and a drink of clabbered milk.

"The chicks were then put with hens and as it was rainy weather they were kept in a dry place. A small oil stove gave them heat. Chick feed was fed them when a few days older and upon reaching the age of 4 weeks, they received corn chop, ground fine, and fish worms for dessert. Green feed, such as alfalfa, cut fine, lettuce and onion tops, was given them at all times.

"The pen and houses were away from the rest of the flock, the runway being under wild plum brush until the chicks grew older; then they had full range of a large alfalfa field, the barn yard, and a rather worn-out orchard, which had been planted to oats that spring. Some were not satisfied with this, so their range took in the corn field also.

"When the chicks reached the age of 8 weeks, their corn chop was ground coarse and buckwheat was given them; also a mash of bran, charcoal, meat scrap, salt and oyster shell. A tonic was fed twice a week as a preventive from cholera and other diseases.

"The house for my chicks consisted of two coops, one facing the south and the other the north. Between these coops the feeding troughs were kept and a watering can. Overhead was a large, sort of a canopy, overrun with hop vines. The house was in the corner and a small peach tree stood in front of it.

They were Independent Chickens

"The chickens grew large enough that it was not necessary to keep them in the coop until I got out to open it. They went to bed when they got ready and got up when ready. Shortly after they roosted on top of the shed and in the peach tree.

"When Winter came along with his icy fingers they were put with the farm flock in the winter quarters. The chicks were indoors all winter until Mistress Spring melted the snow and ice.

"The flock together was fed corn, buckwheat, oats and a mash of bran, meat scrap, charcoal, sour milk, oyster shell, salt and a cup full of tonic. The dry feed was fed three times a day and the mash at about 10 o'clock.

"In January my pullets began laying and I gathered from two to three contest eggs a day. In September my father sent me a purebred cockerel and he was penned with eight very nice pullets. From February 1 until May 31, I gathered 507 eggs, 172 being set and 12 left on hand not sold or used at the close of the contest. The cost of the feed while the chickens were penned was \$4.85 and the value of the eggs gathered was \$12.60.

"I raised my chicks the way I have just told and didn't lose any of them until I gave one to my sister living in the city. One pullet broke its leg and had to be killed; one died of her own accord, but I didn't lose, kill or give any away until grown.

"Mother said it was just my luck to raise chickens, but as the Irish say 'It mought ha' been and then agin it moughtn't ha' been,' one can hardly tell. Nevertheless my little chicks have been started like their elders and they seem to be following the same path."

The early hatched chick becomes the early laying pullet in the fall when eggs are high.

NOW MAGNETO EQUIPMENT FREE! LOW PRICE!

Get My Proposition

Don't fail to write me for the greatest engine offer ever presented. Think of it, for limited time you can have absolutely free, a genuine Webster Magneto with every Galloway Engine. This is the most unusual offer ever made and one you should not miss. Don't buy an engine anywhere until you get the full details of my free magneto equipment offer.

Genuine Galloway Farm Engine

These are the engines that are so popular on farms everywhere. The Galloway is an engine that is built for real farm service—heavy weight, low speed type. Every part light and interchangeable; develops way above rated horse power; valves in head; uses any fuel and saves fuel cost; large, heavy counterbalanced flywheel; special magneto equipment furnished FREE for a limited time supplies blue hot-sparks; make and break ignition, never misses, easily started, no cranking. Cylinder and water pot frost proof—whole engine fool proof.

The Wm. Galloway Co.
45 Galloway Station
WATERLOO, IOWA

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Never before has a Galloway engine been sold with magneto equipment free. The magneto always costs extra but this is a special proposition for a limited time only to sell quickly five hundred engines to make room in our engine factory.

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We must have the room these engines take up to manufacture tractors. Our tractor business is growing by leaps and bounds. England alone has taken over a thousand tractors. So to make room quickly, and to sell these engines at once, we give the magneto equipment free.

Write today! These engines won't last long at this special offer. So rush your order in. Get the benefit of the free magneto before the offer is withdrawn. Write today sure for full particulars.

Eight War Songs Free!

Here are eight popular hits with both words and music bound in pamphlet form. The names of the songs are:
"Buddy" Is Another Name for Soldier."
"When Uncle Sam's Ten Million Fight the Foe."
"Oh! Son, Your Country Needs You."
"When Bands from Dixie-Land Play La Marseillaise."
"The Sammy Lock Kiss."
"Every Little Girlie."
"Use Goin' Back to the U. S. A."
"Our Country, Our Home, Our Flag."

Send only \$1.00, the regular subscription price of the Farmers Mail and Breeze for one year, and these eight songs with music will be mailed at once, postage prepaid. New or renewal subscriptions accepted on this offer.
Farmers Mail and Breeze, Topeka, Kansas.

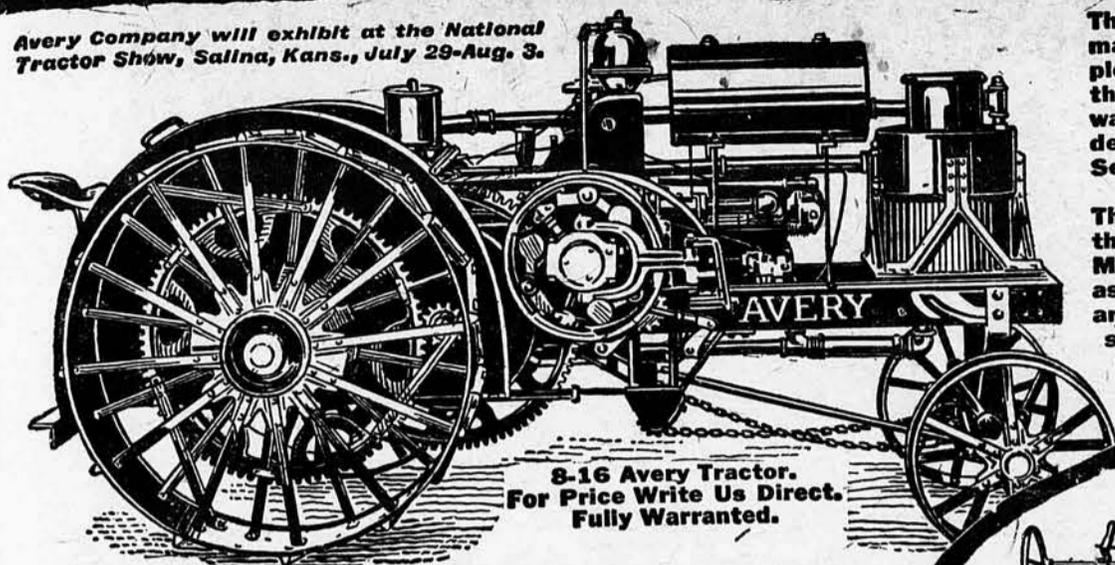


Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit your running gear. Send for it today.
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30 Elm St., Quincy, Ill.

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SERVICE AUTO EQUIPMENT CO.
808 Traders Bldg., Kansas City, Mo.

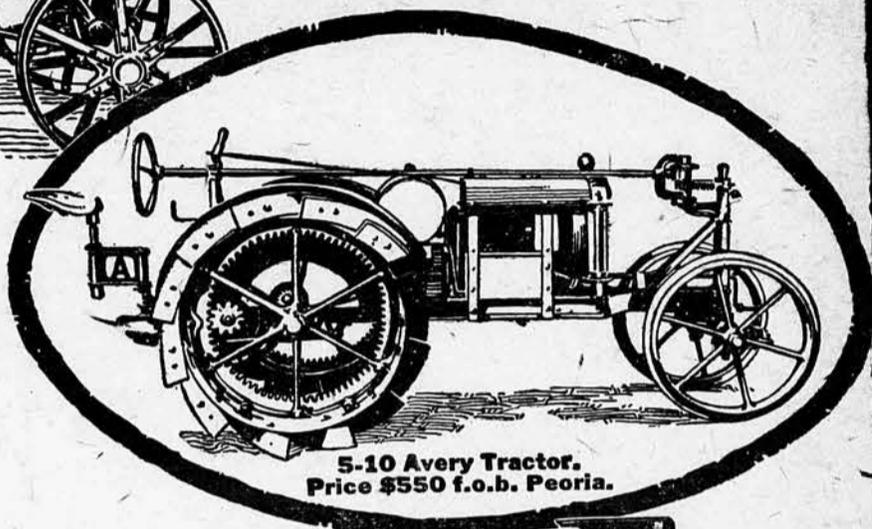
Avery Company will exhibit at the National Tractor Show, Salina, Kans., July 29-Aug. 3.



8-16 Avery Tractor. For Price Write Us Direct. Fully Warranted.

The wonderful Avery 8-16 Tractor (to the left) has made good on thousands of farms. Pulls 2 or 3 plows and furnishes belt power for 19 x 30 inch thresher and other similar farm equipment. Fully warranted. Price includes a reasonable profit to dealers who are obligated to supply Avery Service. See the nearest Avery dealer or write us.

The 5-10 Model B Avery Tractor (below) is just the tractor for small farming, fifty acres or less. Makes power farming a success on farms as small as ten acres. Just the thing for truck gardening and the orange ranch, orchard, etc. Gear driven selective type, three speeds forward and one reverse. Weight only 2,000 pounds.



5-10 Avery Tractor. Price \$550 f.o.b. Peoria.

Avery Gives the World Power for Every Farm Need

For Every Size Farm and Every Kind of Work

THE complete line of motor farming machinery manufactured by the Avery Company fills all power farming requirements for every farmer in the world. Motor farming has been established for every size farm by the Avery Line. The Avery is the **one standardized, thoroughly proved complete line of motor farming machinery.**

With one of the sizes of Avery Kerosene Tractors, you can plow, prepare your seed bed, and plant and harvest your grain crop. With an Avery Motor Cultivator you can cultivate your corn, cotton, beans or any crop planted in rows. With one of the eight sizes of Avery "grain-saving" Separators, you can thresh all kinds of grain, kaffir corn, clover and other seeds.

Every size Avery is a one-man outfit. For any kind of field work, belt work, or road work there is an Avery motor power machine that can be used safely, successfully and profitably.

Avery Tractors are entirely built in our own big factories and every part of an Avery Tractor (motor, radiator, transmission, etc.) is built especially for tractor work and only for the Avery Tractor. The Avery Company are builders—not assemblers. They specialize in motor farming machinery. Don't confuse the Avery Tractor and other Avery machinery with the ordinary assembled machine.

With the Avery Tractor you can unhitch from one machine and instantaneously hitch to another at the drawbar, or apply belt power. And you don't have to use a wrench to do either—the coupler is automatic and the belt pulley is always in place.

Farm With Kerosene

Avery Tractors are real kerosene or distillate burners. They are the only make with a Duplex Gasifier fuel system which does the trick—turns kerosene or distillate into gas.

Cheaper than feeding horses or mules. It means more acres handled by one man and every acre raising bigger crops. With the three or four-plow Avery Kerosene Tractor and an Avery Motor Cultivator, one man can prepare and cultivate two and one-half times the acreage of corn that can be raised with horses. This combination of Avery Tractor and Motor Cultivator saves horses, saves labor, saves food and increases crops.

Five Sizes, One Design, Standardized

The five sizes of Avery Tractors from 8-16 to 40-80 h. p. are all of the same design. Avery Tractors have a patented sliding frame transmission that eliminates the intermediate gear used on other tractors—saving friction and increasing power.

The Avery motor has been rightly called, "The finest power plant on wheels." It is low speed motor—only 600 revolutions per minute. Crankshaft and connecting rods are extra large and strong. Main bearings are adjustable from the outside. Patented inner cylinder walls are removable. All parts are accessible and every part renewable. Many reports show four or five seasons' run without opening the motor case for adjustments of any kind.

See the Nearest Avery Dealer

Go to the Avery dealer and select and buy the size tractor and equipment to meet your requirements, no matter how small or how large the acreage you cultivate.

See samples of Avery Motor Farming Machinery and get prices at the nearest Avery dealer or write direct for complete Motor Farming Catalog describing and illustrating Avery Machinery in their natural colors. Address

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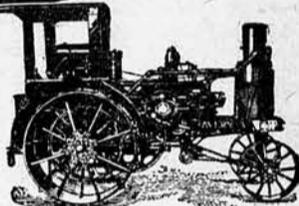
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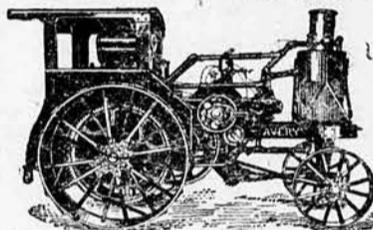
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There's a size Avery Thresher for every size run

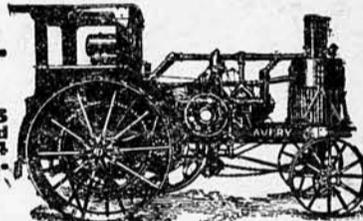
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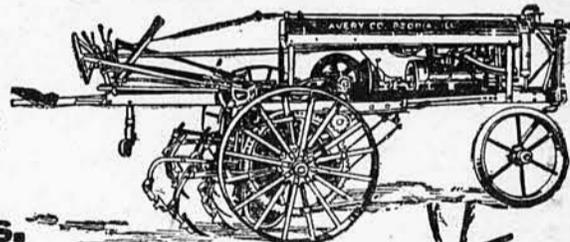
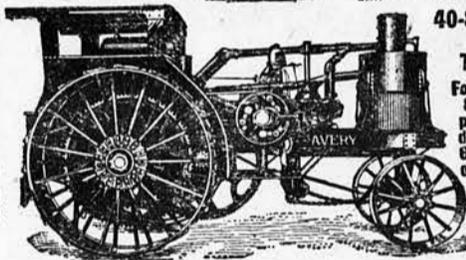
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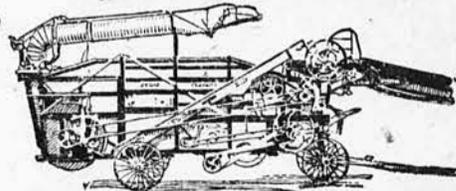
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14.....	1.12	392	14.....	1.12	392
15.....	1.20	420	15.....	1.20	420
16.....	1.28	448	16.....	1.28	448
17.....	1.36	476	17.....	1.36	476
18.....	1.44	504	18.....	1.44	504
19.....	1.52	532	19.....	1.52	532
20.....	1.60	560	20.....	1.60	560
21.....	1.68	588	21.....	1.68	588
22.....	1.76	616	22.....	1.76	616
23.....	1.84	644	23.....	1.84	644
24.....	1.92	672	24.....	1.92	672
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POULTRY.
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.

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BLACK LANGSHAN EGGS 7 CENTS EACH, over 100, 6 cents. Baby chicks, 20 cents. Mrs. Geo. W. King, Solomon, 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.
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LIVESTOCK.
REGISTERED JERSEY BULLS \$50. COWS and heifers. Percy Lill, Mt. Hope, Kan.
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TAKEN ON DEBT, MUST SELL—FOUR- year-old jack, two jennets heavy in foal, worth \$1,000, all for \$400 or exchange for auto. Dr. Miller, 3239 Victor St., Kansas City, Mo.

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EASTERN COLORADO LANDS ADVANC- ing. Good soil. \$14 up. Easy terms. Haynes Realty Co., Vona, Colo.
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FOR SALE—A FINE SUBURBAN PROP- erty at Manhattan, Kansas, 20 acres. Close to college. Good stone house, barn and other buildings. Two good wells. G. A. Mitchell, Freeport, Ill.
FOR SALE SMALL AND LARGE RIVER bottom farms 3 to 6 miles from Emporia, Kan. Also ranches in Chase county, Kan. Write or see me for terms and prices. H. F. Hoel, Cottonwood Falls, Kan.
FOR SALE CHEAP—460 ACRE, GOOD stock and grain farm, 9 miles from county seat. Extra good improvements, fine water system. Water in house, at barn and hog pen. Will sell growing crop. O. O. Goodman, Hill City, Kan.

HIGH PRICES PAID FOR FARM AND dairy products by city people. A small classified advertisement in the Topeka Daily Capital will sell your apples, potatoes, pears, tomatoes and other surplus farm produce at small cost—only one cent a word each insertion. Try it.
SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for \$200 to \$300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price \$10 to \$15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartledge, Santa Fe Land Improvement Company, 404 Santa Fe Bldg., Topeka, Kan.

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I HAVE CASH BUYERS FOR SALABLE farms. Will deal with owners only. Give description, location and cash price. James P. White, New Franklin, Mo.

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NICE CLEAN PINTO BEANS DELIVERED, ten cents per pound, fifty pound lots or more. Fred Hines, Elkhart, Kan.
OUR FIELD AND GARDEN SEEDS BEAR a reputation. Write us your wants. Watson Bros., Wholesale Seed Merchants, Milan, Mo.
ALFALFA SEED FROM NORTHWEST Kansas, 99% pure, good germination, \$3.50 per bushel. Order early. Freight is slow. George Bowman, Logan, Kan.
GUARANTEED SEEDS. RED TOP, Orange, Amber cane, \$2.25; seed rye, \$2.50; turnip seed, \$1.75 lb. Oliver typewriter, like new, \$30. L. C. Smith, nearly new, \$35. New check writer, \$20, cost \$35. Any machine shipped on trial on \$5 deposit. J. G. Meier, Russell, Kan.

DOGS.
ESQUIMO SPITZ PUPPIES, PLAINVIEW Farm, Humboldt, Kan.
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ESQUIMO SPITZ PUPS, MALES \$5, FE- males \$3. Jerry Brack, Star Route, Havensville, Kan.
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SHEPHERD PUPPIES FOR SALE. Crossed between Shepherd and Canadian Shepherd, from natural heifers, six weeks old. Now ready to take. Males, \$7; females, \$5. Frank Lott, Danville, Kan.

THE AIREDALE—THE MOST WONDER- ful dog on earth. Great watch and stock dog. Will do anything any dog can do, and do it better. Pedigreed puppies for sale at farmer's price. Descriptive circulars free. P. H. Sprague, Maywood, Ill.
PEDIGREED GERMAN SHEPHERD PUPS, (Belgian police dogs.) Most intelligent dogs in world. Thousands in use in Red Cross work, battlefields of Europe. Good watch and stock dogs, natural heifers. Prices reasonable for high class dogs. T. L. Smith, Masters, Colo.

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FOR SALE OR TRADE—NEW AND USED farm tractors. S. B. Vaughan, Newton, Kan.
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SANDUSKY TRACTOR, \$1,000, 15-35, FOUR plows with breaker bottom in good repair ready for business at Dighton, Kan. Address F. L. Webb, Sterling, Kan.

FOR SALE OR TRADE FOR ANYTHING of equal value, one Nichols and Shepard steam engine, one Eclipse separator, in good running order. Value, \$1,000. W. A. Pickett, Garrison, Kan.
BARGAIN IN FIVE PASSENGER REGAL car. Overhauled, repainted, upholstered, best leather, electric lights. Will accept Liberty bonds in payment. \$325. F. Hillix, 832 Lincoln Street, Topeka, Kan.
FOR SALE—WE HAVE A NUMBER OF Manson Campbell fanning mills and graders for sale, \$30 F. O. B. Louisville. All new mills and in first class condition. Interstate Merc. Co., Louisville, Ky.
FOR SALE CHEAP—AN INTERNATIONAL two cylinder engine, 22-45. Also seven 16 inch Emerson plows. All in first class condition. Sell separate or together. Write Bardwell & Bardwell, Manhattan, Kan.

BALE TIES WHOLESALE AND RETAIL, lumber direct from mill in car lots, send itemized bills for estimate. Shingles and rubber roofing in stock at Emporia. Hall-McKee Lumber & Grain Co., Emporia, Kan.
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FOR SALE—TWO AVERY TRACTORS, 12-25 H. P. Two Bull tractors, 3 four bottom plows, two 18 disc 7 inch Superior wheat drills, 3 two row listers, six sections of harrows. Four iron wheel wagons. Everything almost new. These are in Western Kansas. Address, Chas. L. Rea, Box 1, Kansas City, Mo.

HELP WANTED.
WANTED—ENTERPRISING BOY OR GIRL representative in every community. Address, Register Optical Co., Norton, Kan.

HELP WANTED.
WANTED: LABORERS AND FISH CUL- turist at State Fish Hatchery, Pratt, Kansas. W. C. Tegmeier, Warden.

WANTED—MEN FOR GENERAL FARM work. Men not in class one and two in draft preferred. Steady work. The Garden City Sugar & Land Co., Garden City, Kan.
WANTED—CAN USE GOOD MARRIED man. Holstein cows; milking machine. In city limits. Write at once giving experience. The Garden City Sugar & Land Co., Garden City, Kan.
WANTED AGENTS—TAKE ORDERS UN- der the "Madison System" selling greatest cutlery bargain ever offered. Valuable premium to your customers. We make all deliveries to your customers sending you commission check every Saturday. No money required. \$1,000 in prizes to our agents in addition to regular commissions. Cascade Merchandise Corporation, 880 L. C. Smith Building, Seattle, Washington.

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SHIP YOUR LIVE STOCK TO US—COM- petent men in all departments. Twenty years on this market. Write us about your stock. Stockers and feeders bought on orders. Market information free. Ryan Robinson Com. Co., 425 Live Stock Exchange, Kansas City Stock Yards.

MISCELLANEOUS.
FOR BEST KODAK PICTURES, SEND your films to Reed Studio, Norton, Kan.
WANTED TO BUY HEDGE, LOCUST, MUL- berry and catalpa posts. Also locust and catalpa groves. Address Fence Posts, care Mail and Breeze.

HIGH PRICES PAID FOR FARM AND dairy products by city people. A small classified advertisement in the Topeka Daily Capital will sell your apples, potatoes, pears, tomatoes and other surplus farm produce at small cost—only one cent a word each insertion. Try it.
LET US DEVELOP YOUR FILMS! OUR price only 25c for developing a 6 exposure roll film and making six prints up to postal size. Postals, 40c. Mailed back, prepaid. Cash must accompany order. Do not send postage stamps. Moon's Art Studio, Box T, Preston, Minn.

FORDS CAN BURN HALF COAL OIL, OR cheapest gasoline, using our 1918 Carburetor; 34 miles per gallon guaranteed. Easy starting. Great power increase. Attach it yourself. Big profit selling for us. 30 days trial. Money back guarantee. Styles to fit any automobile. Air-Friction Carburetor Company, 560 Madison Street, Dayton, Ohio.
BIG BARGAIN FOR SHORT TIME ONLY. Send only 10 cents and receive the greatest farm and home magazine in the Middle West for six months. Special departments for dairy, poultry and home. Address Valley Farmer, Arthur Capper, publisher, Dept. W. A. 10, Topeka, Kansas.
HANDLE MORE BUSINESS? ARE YOU getting all the business you can handle? If not get big results at small cost by running a classified ad in Capper's Weekly. The Great News Weekly of the Great West with more than a million and a quarter readers. Sample copy free for the asking. Only 8c a word each week. Send in a trial ad now while you are thinking about it. Capper's Weekly, Topeka, Kan.

Rains Help the Corn
Soaking rains since July 1 have benefited the corn crop very materially. The corn has been kept unusually clean this year, so that the late rains and warm weather have caused the crop to grow very rapidly. In Republic and Jewell counties the cultivation of corn is reported to have been completed. Reports of dry soil conditions still come from several counties, the drought interfering with plowing and corn cultivating in some places. The potato crops need additional moisture; more rain would also help the alfalfa, tho this crop is not suffering greatly from the lack of water. The majority of Kansas farmers are in the midst of threshing, and the wheat is yielding well. Allendale Farm, near Topeka, reports an average yield of 42 bushels to the acre of Turkey red wheat. Great care is being taken in the threshing to save every kernel of grain.

Noosho County—Wheat, oats and flax are cut and stacked. Threshing on bottom land is progressing nicely, and some farmers report yields of 40 bushels an acre. Flax was about half the average yield. Corn and kafir need rain badly. Prairie grass is drying up. The weather is too dry to plow for wheat.—A. Anderson, July 12.

Osborne County—We have had a few showers but not a good rain for weeks. Harvest is over and threshing has begun. The wheat crop was not so good as it was expected to be. Cattle are being shipped to market.—W. F. Arnold, July 13.

Jewell County—The ground is very dry, with second alfalfa crop at a standstill. Threshing is going ahead nicely, but the wheat is of poor quality. Corn cultivating is completed. Pastures are drying up.—L. S. Behymer, July 13.

Wilson County—The wheat crop was well up to expectations. Oats and flax crops were very poor. Many cattle are being shipped out on account of shortage of water. It is too dry to cultivate our crops.—S. Carty, July 10.

Pawnee County—Good rains last week were welcomed by the farmers. Plowing is keeping us busy this week. The second cutting of alfalfa was soaked. Wheat fields

averaged 5 to 16 bushels an acre, but the quality was good in most fields. Many farmers are selling wheat direct from the threshers.—C. E. Chesterman, July 13.

Trego County—Harvest is over and the wheat crop is of a low grade. Oats and barley are not showing up well. Corn has held up during the dry, hot weather. Gardens and potatoes need rain badly. Farmers are plowing for wheat.—C. C. Cross, July 12.

Osage County—Corn looks well. Some oats and wheat still are standing in the shock, waiting to be threshed. Late planted potatoes will be much better than the early varieties. Prairie hay and the second alfalfa cutting were light crops.—H. L. Ferris, July 13.

Saline County—The second alfalfa crop was very short. Harvest is nearly over, and threshing has begun. The wheat yield in this vicinity will average from 20 to 30 bushels an acre. Some fields are badly shriveled, due to the excessive heat while the crop was ripening. Labor is being paid from 45 to 65 cents an hour here.—Edwin F. Holt, July 8, 1918.

Elk County—We had little rain in June, and corn and gardens are not showing up well. Oats and wheat yields will average 20 bushels an acre; they are of fine quality. The prairie hay crop will be light. Pastures are short.—C. C. Jones, July 10.

Kearney County—Some fine rains fell last week, which greatly relieved the crop situation. The second crop of alfalfa is being cut. Grasshoppers are still numerous. Butter 45c.—A. M. Long, July 13.

Republic County—Corn is "laid by" the crop shows good color but needs rain badly to bring out the tassels. Oats has been stacked. Very little shock threshing is being done. Pastures are short and stock water is scarce. Butterfat 45c; eggs 30c.—E. L. Shepard, July 13.

Sumner County—A good rain last week brought out the corn, kafir and other row crops wonderfully. Shock threshing is at a standstill for a few days. Some farmers have stacked their grain. Plowing for wheat will begin in a day or so. Wheat \$2.08; corn \$1.40; oats 65c; eggs 22c; butterfat 42c.—E. L. Stocking, July 13.

Geary County—We are having ideal sum- mer weather. We had 2 inches of rain on July 4. Corn is free of weeds in most fields and has begun to tassel. Threshing and stacking are keeping us busy at present. Wheat is of fair quality, but oats is very light.—O. R. Strauss, July 13.

Graham County—Pastures are greening up again and stock appears well. Harvest is nearly over. A good rain would help at this time, as we should begin plowing for fall crops.—C. L. Kobler, July 12.

Lincoln County—The weather is hot and dry. Corn needs rain badly. The potato crop was short. Wheat is all out and the quality is not very high.—E. J. G. Wacker, July 13.

Sedgewick County—This county has re- ceived much needed moisture, and the crops are beginning to live up again. Threshing was delayed by the rain. Wheat is threshing out well, and a big part of the crop is being marketed at once. Alfalfa does not grow rapidly, and pastures were damaged badly during the hot, dry weather.—J. R. Keiso, July 13.

Be Careful Whom You Pay

Do not pay your subscription for the Farmers Mail and Breeze or Capper's Weekly to anyone whose name does not appear in the following list:

- Allen, J. E. Butler;
- Anderson, J. F. Baker;
- Anderson, W. F. Sanders;
- Atchison, W. W. Thompson;
- Barber, A. Ellinsworth;
- Barber, E. Batt;
- Barber, W. A. Freeman;
- Barton, R. E. Jones;
- Bourbon, W. F. Wittenbraker;
- Brown, G. F. Mitchell;
- Butler, Thomas Tunstall;
- Chase, J. W. Coverdill;
- Chauntauqua, G. L. Murphy;
- Cherokee, G. L. Murphy;
- Cheyam, _____;
- Clark, J. F. Dicus;
- Clay, I. A. Payton;
- Cloud, L. N. St. Cyr;
- Coffey, J. F. Baker;
- Coffey, W. F. Sandberg;
- Comanche, J. F. Dicus;
- Cowley, Thomas Tunstall;
- Crawford, A. A. Cooper;
- Deatur, _____;
- Dickinson, J. E. Gish;
- Doniphan, W. W. Thompson;
- Douglas, W. G. Fish;
- Edwards, Charles L. Orr;
- Elk, H. E. Barrett;
- Ellis, _____;
- Ellsworth, C. H. Bailey;
- Finney, _____;
- Ford, Charles L. Orr;
- Franklin, W. G. Fish;
- Geary, B. F. Sweet;
- Gove, _____;
- Graham, _____;
- Grant, _____;
- Gray, _____;
- Greenlee, _____;
- Greenwood, H. E. Barrett;
- Hamilton, _____;
- Harper, A. Ellinsworth;
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- Harper, W. A. Freeman;
- Harvey, D. R. Hawley;
- Haskell, _____;
- Hodgeman, J. F. Dicus;
- Jackson, E. V. Goodwin;
- Jefferson, E. V. Goodwin;
- Jewell, George Bolts;
- Johnson, E. W. Petty;
- Kearny, A. Ellinsworth;
- Kingman, E. Batt;
- Kingman, W. A. Freeman;
- Kiowa, Charles L. Orr;
- Labette, G. L. Murphy;
- Lane, _____;
- Leavenworth, E. W. Petty;
- Lincoln, _____;
- Linn, J. E. Butler;
- Logan, _____;
- Lyons, W. F. Rockwood;
- McPherson, D. R. Hawley;
- Marion, J. W. Coverdill;
- Marshall, M. J. Glickerson;
- Meade, _____;
- Miami, J. E. Butler;
- Mitchell, George Bolts;
- Montgomery, G. L. Murphy;
- Morris, W. F. Rockwood;
- Morton, _____;
- Morton, F. C. Warner;
- Neosho, A. K. Sell;
- Ness, J. F. Dicus;
- Norton, _____;
- Ny Osage, G. B. Amos;
- Osage, M. D. Duffey;
- Osborne, _____;
- Ottawa, J. E. Gish;
- Pawnee, C. L. Orr;
- Phillips, _____;
- Pottawatomie, _____;
- Pratt, A. Ellinsworth;
- Pratt, E. Batt;
- Pratt, W. A. Freeman;
- Rawlins, _____;
- Reno, J. K. Herron;
- Republic, E. V. Nelson;
- Rice, J. K. Harron;
- Riley, B. F. Sweet;
- Rooks, _____;
- Rush, R. E. Jones;
- Russell, _____;
- Saline, C. H. Bailey;
- Scott, _____;
- Sedgewick, A. Ellinsworth;
- Sedgewick, E. Batt;
- Sedgewick, W. A. Freeman;
- Seward, _____;
- Shawnee, H. O. Golding;
- Sheridan, _____;
- Sherman, _____;
- Smith, _____;
- Stafford, M. W. Lungstrum;
- Stanton, _____;
- Stevens, _____;
- Sumner, E. Batt;
- Sumner, W. A. Freeman;
- Thomas, _____;
- Trego, _____;
- Wabunsee, G. B. Amos;
- Wallace, _____;
- Washington, E. V. Nelson;
- Wichita, _____;
- Wilson, A. K. Sell;
- Woodson, J. F. Baker;
- Woodson, W. F. Sanders;
- Wyandotte, E. W. Petty;

From Beer to Beef

"Livestock production in Georgia" says the American Hereford Journal, "will be given another boost with the completion of a new packing plant at Macon, soon to be in active operation. One of the main buildings was used as a brewery before Georgia went dry. In addition to this, a five-story concrete building has been put up. The new plant will be able to handle 1,500 hogs and 30 cattle daily."

BARGAINS IN REAL ESTATE

Dealers whose advertisements appear in this paper are thoroly reliable

Special Notice All advertising copy discontinuance or change of 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.

CHOICE S. E. Kansas farms \$40 to \$75. Write me. **Wm. Robbins, Thayer, Kan.**

80 A. \$45, 80 1 ml. town \$65, 320, \$85. Finely imp. 450 ranch 2 ml. town \$50. **P. H. Atchison, Waverly, Kan.**

TWO SNAPS: 155 a. and 147 a. at \$100 per a. Good imp. Close in. **Decker & Booth, Agents, Valley Falls, Kansas.**

SEVEN QUARTER SECTIONS in body, close to three elevators. School on land. Sell together or separately. Give terms 1-10 cash. **The King Realty Co., Scott City, Kan.**

1,520 A. highly improved, wheat, alfalfa and pasture land 4 ml. Dighton, terms on part. \$16 an acre. **C. N. Owen, Dighton, Kan.**

KAW VALLEY. 40 a. fine land, on gravelled road, 6 miles of Topeka, \$11,000. Address **Owner, Care Farmers Mail and Breeze, Topeka, Kan.**

I HAVE several good farms for sale cheap, in German Catholic settlement. Crops looking fine. Will bear inspection. **Jake Brown, Olpe, Kan.**

BEST 640 acre, Eastern Kansas creek bottom grain and stock farm, well located and improved. Other good farms at right prices. **E. B. Miller, Admire, Kan.**

BIG MONEY farming. Write for free descriptive booklet telling about Eastern Kansas farm bargains and best town in state. **Mansfield Land Co., Ottawa, Kan.**

ONE FIFTH RENT. 500 acres good level wheat land, unimproved for rent. Immediate possession. Write. **S. W. Nat'l Bank, Dodge City, Kan.**

FOR SALE: 80 acre creek bottom farm, fair improvements, near Emporia. \$110 per acre. **Rose G. Kretzinger, Owner, Emporia, Kan.**

LANDS in Stevens and Morton Co. and Baca Co., Colo. on reasonable terms. Will trade for livestock or small residence property. **John A. Firmin & Co., Hugoton, Kan.**

CHASE COUNTY—Fine stock farm 1 mile town, 300 acres alfalfa land, 400 acres finest grazing land, splendid improvements. Price \$60,000. Terms. **J. E. Bocook & Son, Cottonwood Falls, Kan.**

FOR SALE one of the best stock and grain ranches in Wabunsee Co., Kan. 80-160-320 improved farms, prices and terms to suit. Write for descriptions. **Ira Stonebraker, Allen, Kan.**

SUBURBAN HOME, 40 acres, well improved, 1/2 mile out, must be sold; 200 acre farm, 3 miles Emporia, improved, well located, \$50 per acre. Write for list. **T. B. Godsey, Emporia, Kan.**

GOOD SOUTHEASTERN KANSAS FARMS: For sale on payments of \$1,000 to \$2,000 down. Also, to exchange for clear city property. Address **The Allen County Investment Co., Iola, Kan.**

\$17,000 STOCK of hardware and implements. Stock is new and up to date. Also fine 2 story brick store room, good as new. Second story is a hall. Good town. For good farm east 1/2 Kan. **Diebolt & Bradford, Olpe, Kan.**

240 ACRES improved farm, 200 acres in cultivation. Priced at \$18,000 if taken at once. Wheat this year will make twenty bushel. **The Pratt Abstract & Investment Co., Pratt, Kan.**

WOULD LIKE to locate 300 good families in Wallace county Kansas, for general farm and stock raising, land paying for itself one to five times this year. Write for what you want. **A. H. Wilson, Sharon Springs, Kan.**

IMPROVED section for rent. 400 acres cultivated, balance pasture. One-third rent, pasture free. 8 room house, stable room for 14 horses, granary room 6,000 bushels. Immediate possession. Write. **Farmers State Bank, Offerle, Kan.**

FOR SALE. The best garage in town of 16,000 inhabitants. This garage is making plenty of money. Prefer cash deal but might consider trading for good farm. Reasons for selling have government position and cannot operate garage. For particulars write **Dr. E. G. L. Harbour, Box 113, Lawrence, Kan.**

160 ACRES, Franklin county, Kansas; 5 miles town; 8 room modern house; large barn, other good improvements; abundance of water; gasoline engine; 100 acres wheat; 60 acres native grass; no rock or gravel; very choice location. Price \$110 per acre. **Frank Mansfield, Ottawa, Kan.**

160 ACRES 4 1/2 miles good Franklin county town, good improvements including cattle and hog sheds. Half mile school. 90 acres cultivation. For quick sale \$9,000. 50 acres, 12 alfalfa, 2 miles Ottawa, nice laying, all tillable. Fair house, extra barn. An ideal place \$7,500. **Dickey Land Co., Ottawa, Kan.**

160 Acres For \$2600 Near Wellington; creek bottom; good bldgs.; 30 past., 25 alfalfa, rest wheat, oats, hay; poss.; crops go; \$2600 cash, \$500 year. Snap. **R. M. Mills, Schweiter Bldg., Wichita, Kan.**

1680 Acre Ranch \$12.50 PER ACRE—1/4 CASH balance easy terms at 6%. In Seward Co. 2 miles from town. Fine grass, some farm land, no waste land. Possession immediately. No trades. Special plat mailed upon request. Write owners. **Griffith & Baughman, Liberal, Kan.**

160 ACRES Franklin County land, 2 miles railroad town; every acre smooth tillable land; 50 acres fine pasture; 10 acres timothy and clover; remainder corn, wheat, oats. 6 room house; barn, out buildings; plenty water; possession at once of stubble land, to sow wheat. Price \$65, \$2,500 or more cash, remainder long time if wanted. **D. L. Casida, Ottawa, Kan.**

FOR SALE an 80 a. corn and wheat farm, 4 1/2 miles west of Tampa, Marion Co., Kan., with good improvements. Barn for 8 horses, a cow shed, chicken house and a small grain bin. 3 room house, two wells with plenty of water. 14 a. pasture and 5 a. alfalfa and rest in cultivation. Price \$7,500. For particulars write to **Joe Chvilbeck, Marion, Kansas.**

MISSOURI

OUR BIG new list for the asking. **Amoret Realty Co., Amoret, Mo.**

HOMES IN MISSOURI. The land of opportunities. Buy now. **Duke, Adrian, Mo.**

REAL BARGAINS in Mo. farms; write for illustrated booklet, and list. **R. L. Presson, Bollivar, Mo.**

\$3,000 CASH, time \$13,000 buys fine blue-grass and grain Polk Co. farm. Fifty other good ones. **W. R. Taylor, Aldrich, Mo.**

POLK CO., real bargains, in grain, stock, clover farms with fine flowing springs. **W. M. Fellers, Flemington, Mo.**

POOR MAN'S Chance—\$5 down, \$5 monthly, buys 40 acres productive land, near town, some timber, healthy location. Price \$200. Other bargains. **Box 425-O, Carthage, Mo.**

115 A., 100 a. fine bottom land, 90 a. cult., 15 a. alfalfa, bal. corn, all fenced, 4 r. house, fair barn, 3 ml. county seat on Sugar creek. Price \$7,500. Terms. Write **Sherman Brown, Pineville, McDonald Co., Mo.**

80 ACRE STOCK FARM One mile west of Cuba, Mo. All in cultivation, 46 acres tame grass. Fine 6 room house and cottage for help. Two barns, fine hog houses and fattening pens. 3 cisterns, well and gasoline engine. Water in all houses, barns and feed lots. 6 Jersey cows; 5 horses; 14 brood sows; 1 boar and 50 shoats; 10,000 bushels corn and much other feed; also implements, \$23,999. Improvements; stock; feed and implements worth the money. If you want the greatest bargain in Missouri write **ED. F. CATLIN, Grain Exchange, St. Louis, Mo.**

OKLAHOMA

LAND BARGAINS, of leases. Write for list. **Roberts Realty Co., Nowata, Okla.**

160 A. 2 ml. R. R. town. All dry bottom land, all tillable. 80 a. cult. Good imp. \$40 per acre. **Southern Realty Co., McAlester, Okla.**

SOME BIG VALUES in fine alfalfa land, located in the famous Canadian river bottom, near Calumet, Okla. 160 acre farm, 1 1/2 miles good town, 70 acres alfalfa land. Price \$7,000. Write or call. **Wallace & Zook, Calumet, Okla.**

FOR SALE: Colorado ranch; twelve hundred acres; hundred twenty-five irrigated; balance pasture; price fifteen thousand; will take up to three thousand in residence property in Kansas or Northern Oklahoma; five thousand cash; balance back on the ranch; will pay you to write at once. **A. B. Armstrong, Guthrie, Okla.**

COLORADO

EASTERN COLO. Farms and ranches, \$10 to \$25 a. Write for maps and lists. **Hollingsworth Land Co., Ariba, Lincoln Co., Colo.**

WHEAT LAND near Denver \$22. 715 acres, 260 acres deep plowed, ready for fall wheat. Easy terms to good farmer. **Fred-ericksen, 216 Colo. Nat'l Bank, Denver, Colo.**

COME TO Eastern Colorado where good land is yet cheap. Good water, fine climate, good crops, fine stock country. Write for list. **W. T. S. Brown, Seibert, Colorado.**

ONLY about 15,000 acres of what is known as the Nutting or Mrs. Jackson land left out of 50,000 acres formerly owned by them; it will soon be all gone, which ends the cheap land bargains near Limon and Hugo. Get owner's prices while it lasts from **W. S. Pershing, Ex-mayor, Limon, Colo.**

FARM LANDS.

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. Bricker, 81 Northern Pacific Bldg., St. Paul, Minn.**

SALE OR EXCHANGE

EXCHANGE BOOK, 1000 farms, etc. Trades everywhere. **Graham Bros., El Dorado, Kan.**

FOR SALE 80 acre farm all in cultivation, all to be put in wheat. Sell or trade. **O. C. Paxson, Meriden, Kan.**

WE HAVE some very good farms for sale or exchange for mds. and income property and they are good—crops are fine. Will almost pay out first crop. **Triplet Land Co., Garnett, Kan.**

TO EXCHANGE for farm about equal value, 6 1/2 acres, 1/2 planted. Heart of city. On car lines and paved streets. Value \$19,500. Prefer Eastern Kansas or Western Missouri. **C. J. Lidikay, M. D., Kansas City, Kan.**

Balancing the Ration

A pig will balance his ration if given an opportunity, and he probably will do it better than most people do it for him. Farmers have found that various bunches of pigs will eat different proportions of the same feeds, which is an indication that they have different tastes, or desires. On account of the difference in appetite, it is impossible to predict in advance just what ration should be given for the best gains.

In addition to the variation in food requirements for different bunches of pigs, results at the Illinois station indicate that the same pigs will eat varying amounts of the same ingredients as they become older and heavier. In tests recently conducted at this station in which pigs were fed corn and tankage in the feeders, the daily consumption a head by periods, beginning when the average individual weight was 47 pounds, was as follows:

	Shelled corn	Tankage
	pounds	pounds
1st period (four weeks)...	2.1	.40
2d period (four weeks)...	2.7	.47
3d period (four weeks)...	3.3	.54
4th period (four weeks)...	5.6	.44
5th period (four weeks)...	7.2	.36
6th period (24 days).....	7.3	.26

At the end of the test the pigs weighed 250 pounds apiece, as an average, and had made daily gains of 1.30 pounds a head.

In a second lot, in which middlings were fed with corn and tankage, the pigs ate practically the same amounts of corn and tankage as those in the first lot, and in addition, more than twice as much middlings as tankage. In the second lot, however, the gains were more rapid, being at the rate of 1.40 pounds a day, giving a final weight of 277 pounds. It seems, therefore, that the addition of middlings increased the rate of gains.

The economy of gains depends, of course, upon the relative cost of the feeds. Many people are of the opinion that with the self-feeder the gains will be made on less feed than with other methods of feeding. Results obtained at the Illinois station will not warrant such a conclusion. In fact, in the various tests in which the hogs have been carried on to the same weight, the amount of feed required for a given amount of gain was slightly less for the hand-fed hogs than for those which were self-fed. Some tests at other stations indicate a slight saving of feed due to the use of the self-feeder.

Make Money Raising Hogs

Hogs are money makers and there is no longer any doubt about it. No other farm animal will multiply as rapidly as the hog. It takes fewer individuals and less capital to start a herd than for any other class of farm animals, and there is more profit in producing a pound of pork than any other kind of meat. Every farmer who does not fatten a few hogs for market every year is making a serious mistake.

Conditions for hog raising are ideal in Kansas, Oklahoma, Southern Nebraska, and Missouri. The lands are low priced, fertile and productive. The winters are short and mild so that expensive barns and shelters for hogs are not necessary. Alfalfa, corn, oats, sorghums, cowpeas, soybeans, rape, sweet potatoes and other root crops used in feeding hogs can be grown successfully in all of the states mentioned. Hogs and alfalfa proved a winning combination for many farmers in the West last year.

The hog is one of the most economical producers of human food among farm animals. Prof. W. H. Jordan of the New York Experiment station says that 100 pounds of digestible nutrients used in feeding will produce the following amounts of edible solids in the form of various animal products: mfk 18 pounds, pork 15.6, veal 8.1, poultry and eggs 3.5 to 5.1, beef 2.75, and mutton 2.6. "The hog," says Dr. R. J. H. DeLoach, director of the Armour Bu-

ARKANSAS

NORTH ARKANSAS FARMS: Cost you only a letter to get the particulars. Address **O. O. Smith, Olvey, Arkansas.**

480 ACRES 8 mile Leslie, main road. 50 cultivation, bal. timber, 2 buildings, fine water \$2150. **Wallace Realty Co., Leslie, Ark.**

CHOICE HOMES and lands Western Arkansas, Logan county, including the famous Pettit Jean Valley. No overflow, no drought, no failure of crops. Write for free list. **Robertson & Son, Magazine, Arkansas.**

reau of Agricultural research, "It should be remembered, produces his 15.6 pounds of digestible solids from 100 pounds of labor required to take care of the dairy cow, such as milking—and labor is so important a consideration now as to offset the apparent advantage that dairy cow shows in Prof. Jordan's report." Commenting on the same report Dr. F. W. Woll of the University of California in his work on "Productive Feeding of Farm Animals," says: "These figures show that the hog has a wonderful capacity for converting feeding stuffs into human food, and he often does it under adverse conditions as regards care and attention, and without being particular as to either the character of the feed or the quarters he occupies. Under these conditions, swine raising is especially profitable and while it requires a smaller investment in animals and equipment, it will, as a rule, yield quicker and relatively larger results than any other branch of animal husbandry."

Sheep for Every Farm

A flock of sheep on every farm, if properly handled would add to the profits from that farm in nearly every instance. Prices for sheep and wool at the present time are at an unprecedented level, and continued high prices seem to be indicated.

There were in the United States on January 1, 1917, 48 1/2 million sheep, and a human population running well over 100 million, as compared with 52 1/2 million sheep and a human population of 90 million in 1910, and with 64 million sheep and a human population of around 75 million in 1903. These data make evident a material shortage in sheep and while present prices are indicative of this shortage as well as an increased demand, an ordinary sized flock of sheep can be handled to excellent advantage on the average farm, and the profits therefrom are worth careful consideration at this time. This is one means of increasing the income from the average farm and at the same time increasing the fertility of the land.

The Week's Market Report

(Owing to the fact that this paper necessarily is printed several days prior to the date of publication, this market report is arranged only as a record of prices prevailing at the time the paper goes to press, the Monday preceding the Saturday of publication. All quotations are from the Kansas City market.)

Wheat—No. 1 dark hard, \$2.29@2.30; No. 2 dark hard, \$2.25@2.29; No. 3 dark hard, \$2.25; No. 4 dark hard, \$2.19.
No. 1 hard, \$2.20@2.25; No. 2 hard, \$2.20@2.25; No. 3 hard, \$2.21@2.23.
No. 2 yellow hard, \$2.19.
No. 1 red, \$2.19; No. 2 red, \$2.18; smutty, \$2.15; No. 3 red, \$2.17@2.18.
No. 1 mixed, \$2.19@2.21; No. 2 mixed, \$2.19@2.21; smutty, \$2.15; No. 3 mixed, \$2.19.
Corn—No. 2 mixed, nominally \$1.75@1.80, sales like sample \$2.12; No. 3 mixed, nominally \$1.72, sales like sample \$2.10; No. 4 mixed, nominally \$1.55@1.62, sample mixed, sales \$1.40; No. 2 white, nominally \$2.10@2.12, sales \$2.12; No. 3 white, sales \$2.02@2.05; No. 4 white, nominally \$1.92@1.97, sales like sample \$1.97; No. 2 yellow, nominally \$1.81@1.83, sales \$1.82; No. 3 yellow, nominally \$1.76@1.79, sales \$1.77 1/2; No. 4 yellow, nominally \$1.70@1.74.
Oats—No. 2-white, nominally 79 1/2c; No. 3 white, nominally 78 1/2c; No. 2 mixed, nominally 74 1/2c; No. 3 mixed, nominally 74 1/2c; No. 2 red, nominally 75 1/2c; No. 3 red, nominally 74 1/2c; sales 74 1/2c.
Kafr—No. 2 white, nominally \$3.18@3.20; No. 3, nominally \$3.18@3.20.
Milo—No. 2, nominally \$3.18@3.22; No. 3, nominally \$3.18@3.20; sales \$3.20.
Rye—No. 2, nominally \$1.65@1.70.
Barley—No. 4, nominally 90c@91.10.
Corn Chop—Nominally \$3.07@3.15.
Bran—Nominally, sacked \$1.18@1.28.
Shorts—Nominally, sacked, \$1.30@1.38.
Mixed Feed—Nominally, sacked, \$1.28@1.35.
Hogs—Bulk, \$17.50@17.65; heavy, \$17.60@17.70; packers and butchers, \$17.50@17.65; light, \$17.40@17.60; pigs, \$16.50@17.00.
Cattle—Prime fed steers, \$17.50@18.38; dressed beef steers, \$13.00@17.25; western steers, \$10.50@15.50; southern steers, \$8.00@15.00; cows, \$7.00@13.00; heifers, \$8.00@16.00; stockers and feeders, \$7.50@15.50; bulls, \$7.50@10.50; calves, \$8.00@14.25.
Sheep—Lambs, \$16.00@18.75; yearlings, \$14.00@17.00; wethers, \$12.00@14.50; ewes, \$8.00@12.50; stockers and feeders, \$6.50@16.50.
Hay—New alfalfa, choice, \$23.00@23.50; No. 1, \$21.50@22.50; standard, \$19.00@21.00; No. 2, \$15.00@18.50; No. 3, \$11.00@14.50.
Prairie, choice, \$19.50@20.00; No. 1, \$18.00@19.00; No. 2, \$15.00@17.50; No. 3, \$9.00@14.50.
Lowland prairie, \$4.00@10.00. New midland and lowland prairie, \$8.00@14.00. Timothy, No. 1, \$21.00@22.00; No. 2, \$16.00@20.50; No. 3, \$9.00@15.50. Clover, mixed, light, \$21.00@22.00; No. 1, \$17.00@20.50; No. 2, \$9.50@16.50. Clover, No. 1, \$15.00@16.50; No. 2, \$8.00@14.50. Straw, \$6.00.

Must Have the Paper

I cannot do without the Farmers Mail and Breeze.— **W. R. Powell, Coffeyville, Kan.**

Conservation, concentration and concentration—for the sake of those at the front.

July 20, 1918.

WHAT BREEDERS ARE DOING

FRANK HOWARD, Manager Livestock Department.

T. W. MORSE, Livestock Editor.

FIELDMEN.

- A. B. Hunter, S. W. Kansas and Okla., 128 Grace St., Wichita, Kan.
John W. Johnson, N. Kansas, S. Neb. and Ia., 820 Lincoln St., Topeka, Kan.
Jesse R. Johnson, Nebraska and Iowa, 1937 South 16th St., Lincoln, Neb.
C. H. Hay, S. E. Kan. and Missouri, 4204 Windsor Ave., Kansas City, Mo.
T. W. Morse, special assignments, 300 Graphic Arts Bldg., Kansas City, Mo.

NOTICE TO LIVESTOCK ADVERTISERS.

The War Industries Board has directed publishers to discontinue sending out all free copies, sample copies and exchanges. Publishers are permitted to mail to advertisers only such issues of the paper as contain their advertisements.

PUREBRED STOCK SALES.

- Percheron Horses. July 25—L. Lauterbach & Son, Mt. Hope, Kan.
Shorthorn Cattle. Nov. 14—L. H. Ernst and L. Lyell, Tecumseh, Neb.
Jersey Cattle. Aug. 6—J. A. Reedy, Lincoln, Neb. B. C. Settles, Palmyra, Mo., Mgr.
Red Polled Cattle. Sept. 5—W. T. McBride, Parker, Kan.
Hereford Cattle. Sept. 3-4—J. O. Southard, Comiskey, Kan.
Holtstein Cattle. Oct. 22—W. I. Bowman & Co., Ness City, Kan. Sale at Hutchinson, Kan.
Poland China Hogs. Aug. 31—VonForrel Bros., Chester, Neb.
Duroc Jersey Hogs. July 26—F. J. Moser, Goff, Kan. Sale at Sabetha, Kan.
Spotted Poland China Hogs. Oct. 3—Alfred Carlson, Cleburne, Kan.
Duroc Jersey Hogs. July 26—F. J. Moser, Goff, Kan. Sale at Sabetha, Kan.
Duroc Jersey Hogs. Aug. 5—W. M. Putman & Son, Tecumseh, Neb.
Duroc Jersey Hogs. Aug. 6—Ahrens Bros., Columbus, Neb.
Duroc Jersey Hogs. Aug. 7—Ed M. Kern, Stanton, Neb.
Duroc Jersey Hogs. Sept. 4—W. T. McBride, Parker, Kan.
Duroc Jersey Hogs. Sept. 14—Roy German, Coldwater, Kan.
Duroc Jersey Hogs. Oct. 10—J. H. Proett & Son, Deshler, Neb.
Duroc Jersey Hogs. Oct. 11—H. J. Nachtigall & Son, Alexandria, Neb.
Duroc Jersey Hogs. Oct. 12—Proett Bros., Alexandria, Neb.
Duroc Jersey Hogs. Oct. 16—Farley & Harney, Hampton, Neb.
Duroc Jersey Hogs. Oct. 17—Theodore Foss, Sterling, Neb.
Duroc Jersey Hogs. Oct. 18—Robt. E. Steele, Falls City, Neb.
Duroc Jersey Hogs. Oct. 19—John C. Simon, Humboldt, Neb.
Duroc Jersey Hogs. Oct. 21—Kansas Breeders Sale, Clay Center, Kan.
Duroc Jersey Hogs. Oct. 22—W. J. Jones, Secy.
Duroc Jersey Hogs. Oct. 23—Laptad Stock Farm, Lawrence, Kan.
Duroc Jersey Hogs. Oct. 24—A. L. Breeding, Home, Kan.
Duroc Jersey Hogs. Oct. 24—F. E. Gwin & Sons, Morrowville, Kan.
Duroc Jersey Hogs. Oct. 25—F. J. Moser, Goff, Kan., at Sabetha, Kan.
Duroc Jersey Hogs. Oct. 26—J. A. Bockenstette, Fairview, Kan., at Hiawatha, Kan.
Duroc Jersey Hogs. Oct. 28—Geo. M. Klusmire, Holton, Kan.
Duroc Jersey Hogs. Oct. 29—F. J. Turinsky, Barnes, Kan.
Duroc Jersey Hogs. Oct. 15—W. H. Schroyer, Miltonvale, Kan.
Duroc Jersey Hogs. Oct. 16—R. M. Young, Cook, Neb.
Duroc Jersey Hogs. Oct. 21—D. J. Ryan and R. E. Mather, Centralia, Kan.
Duroc Jersey Hogs. Oct. 26—Theodore Foss, Sterling, Neb. (Night sale)
Duroc Jersey Hogs. Oct. 27—Dave Boesiger, Courtland, Neb.
Duroc Jersey Hogs. Oct. 28—W. M. Putman & Son, Tecumseh, Kan.
Duroc Jersey Hogs. Oct. 29—Geo. Briggs & Son, Clay Center, Kan.
Duroc Jersey Hogs. Oct. 30—J. O. Honeycutt, Marysville, Kan.
Duroc Jersey Hogs. Oct. 31—F. J. Moser, Goff, Kan., at Sabetha, Kan.
Duroc Jersey Hogs. Oct. 32—Farley & Harney, Aurora, Neb.
Duroc Jersey Hogs. Oct. 33—J. W. Whalen & Son, Courtland, Neb.
Duroc Jersey Hogs. Oct. 34—Proett Bros., Alexandria, Neb.
Duroc Jersey Hogs. Oct. 35—W. H. Swartsley & Son, Riverdale, Kan.
Duroc Jersey Hogs. Oct. 36—W. H. Schroyer, Miltonvale, Kan.
Duroc Jersey Hogs. Oct. 37—H. A. Deets, Kearney, Neb.
Duroc Jersey Hogs. Oct. 38—H. E. Labart, Overton, Neb.
Duroc Jersey Hogs. Oct. 39—C. French, Lexington, Neb.
Duroc Jersey Hogs. Oct. 40—H. D. Geiken, Cozad, Neb.
Duroc Jersey Hogs. Oct. 41—C. T. White, Lexington, Neb.
Duroc Jersey Hogs. Oct. 42—Ahrens Bros., Columbus, Neb.
Duroc Jersey Hogs. Oct. 43—D. L. Wallace (night sale), Rising City, Neb.
Duroc Jersey Hogs. Oct. 44—R. Wide & Son, Genoa, Neb.
Duroc Jersey Hogs. Oct. 45—Guy Zimmerman, Morrowville, Kan., at Fairbury, Neb.
Duroc Jersey Hogs. Oct. 46—Ed. M. Kern, Stanton, Neb.
Duroc Jersey Hogs. Oct. 47—F. E. Gwin & Sons, Morrowville, Kan., at Washington, Kan.
Duroc Jersey Hogs. Oct. 48—Lester Coad, Glen Elder, Kan.
Duroc Jersey Hogs. Oct. 49—L. L. Humes, Glen Elder, Kan.
Duroc Jersey Hogs. Oct. 50—Earl Babcock, Fairbury, Neb.
Duroc Jersey Hogs. Oct. 51—C. E. Clark, Thompson, Neb.
Duroc Jersey Hogs. Oct. 52—R. E. Steele, Falls City, Neb.
Duroc Jersey Hogs. Oct. 53—W. J. Jones, Clay Center, Kan., and Glen Keesecker, Washington, Kan., at Clay Center.
Duroc Jersey Hogs. Oct. 54—E. P. Planagan, Chapman, Kan.
Duroc Jersey Hogs. Oct. 55—John C. Simon, Humboldt, Neb.
Duroc Jersey Hogs. Oct. 56—T. P. Moren, Johnson, Neb.
Duroc Jersey Hogs. Oct. 57—John W. Jones, Minneapolis, Kan., at Salina, Kan.
Duroc Jersey Hogs. Oct. 58—B. R. Anderson, McPherson, Kan.
Duroc Jersey Hogs. Oct. 59—Mott Bros., Herington, Kan.
Duroc Jersey Hogs. Oct. 60—A. J. Turinsky, Barnes, Kan.
Duroc Jersey Hogs. Oct. 61—R. E. Mather, Centralia, Kan.

Mch. 7—J. A. Bockenstette, Fairview, Kan., at Hiawatha, Kan.
Chester White Hogs.
Nov. 7—Arthur Mosse, Leavenworth, Kan.
Feb. 1—Arthur Mosse, Leavenworth, Kan.

S. W. Kansas and Oklahoma

BY A. B. HUNTER

Bernard McQuillan, Clearwater, Kan., has at present one of the best herds of Spotted Poland Chinas in Kansas. His herd sows have plenty of bonus and size, with quality; they are exceedingly prolific. Mr. McQuillan is liable to be called to war and, therefore, wishes to reduce his herd even at a sacrifice. Therefore, he is offering to reduce the price where six or more are taken in the same order. Here is a chance to buy a whole herd and for much less than their real value. Write him today, mentioning Farmers Mail and Breeze.—Advertisement.

Duroc Bred Gilts.

W. W. Otey & Sons, Winfield, Kan., is offering at present 15 Duroc gilts, bred for late summer and early fall litters. Otey & Sons never had more or better hogs than they have right now and here is a splendid opportunity for some one to get one or six or a dozen of the kind of Duroc gilts that will soon put him in the hog business. They are in pig to the unusually good herd boars, Hercules 3rd or Pathfinder Chief 2nd, perhaps the largest and smoothest son of the mighty Pathfinder. If you want to see some good hogs, wire or write Mr. Otey when you will come to Winfield. Please mention Farmers Mail and Breeze.—Advertisement.

Black's Duroc Herd,

C. H. Black, Marlton, Kan., has a real herd of Durocs. His herd sows have been selected not for their blood lines alone, but for scale and quality. At the head of this herd is Red Cross Pathfinder, and he is a real show prospect by the great Pathfinder and out of a Golden Critic dam. Among his herd sows is Keep On Lady, second in aged gilts at Topeka, 1917. These sows and gilts are strong in the blood of present day winners. If you want a gilt bred to this great son of Pathfinder, or spring pigs, pairs or trios unrelated and the kind that will surely please you, write your wants today, mentioning Farmers Mail and Breeze.—Advertisement.

Reed & Sons' Durocs.

John A. Reed & Sons, Lyons, Kan., are making reduced prices on 10 or 12 bred gilts. They are out of sows that carry the blood of such noted sires as Crimson Model, Crimson Wonder, Illustrater, Defender, Critic B. and Golden Model 34th. They are by such sires as Reed's Gano, by Col. Gano, and Crimson's Golden Model and are safe in pig to Reed's Gano and Reed's King The Col. for early fall litters. They also have the best lot of early spring pigs from which to select they have ever had to offer. Everything double treated. Write them for particulars and get first choice. Please mention Farmers Mail and Breeze.—Advertisement.

Bowman & Co.'s Next Hereford Sale.

W. I. Bowman & Co., Ness City, Kan., have claimed Tuesday, October 22, as the date of their next Hereford sale at Hutchinson, Kan. They will put in this sale 80 head of the best Herefords they have ever yet sold at auction, 50 young cows and heifers and 30 bulls, sons and daughters of Generous 5th, Imp. Shucknall Monarch and Lawrence Fairfax, three of their well known herd bulls. The Bowman & Co. herd has become noted for its large framed, deep bodied, strong boned, breeding cows, descendants of Generous, Sallor and Militant, three great Anxiety 4th, bred sires. Those who wish bone, size and breeding quality, are beginning to look forward to and are regular patrons of the Bowman & Co. sales. Send your name now for catalog and get on mailing list, mentioning Farmers Mail and Breeze.—Advertisement.

G. M. Shepherd's Durocs.

G. M. Shepherd, Lyons, Kan., has one of the leading Duroc herds of the state. He has at present over 100 spring pigs sired by such boars as his King's Col. I Am, by King's Col. and out of Queen Elizabeth 1st, litter sister to the Pan American grand champion sow. Others are by Great Wonder Model, by Great Wonder and out of a Grand Model dam. One litter is out of a daughter of Grand Model 8th, 1st aged boar, Iowa State Fair 1917. Another litter is out of Crimson Echo, litter mate to 1st prize yearling sow, Nebraska State Fair 1917. Another fine litter is at side of Walla Lady, by the champion, Tat A Walla, her mother also was a champion. Lady Illustrater also has a fine litter. She is by Illustrater 2nd, a champion and her dam was by Golden Model Again, and was second in Jr. yearling class. Golden Girl Again, the dam of his last year's show herd, also has another litter that will be heard from. Mr. Shepherd is ready to make prices on tried sows, bred gilts and spring pigs, either sex. Write or call soon, mentioning Farmers Mail and Breeze.—Advertisement.

Erhart & Sons' Hog Plant.

A. J. Erhart & Sons, Ness City, Kan., whose hog ranch of 22 acres adjoins Ness City, were just completing the irrigation of 30 acres of corn and the writer called to look over their hogs. 140 acres of this farm is in alfalfa and corn and under the ditch where abundant water is supplied by a 10,000 pound Burrell Syphon System Lane Bolen Centrifugal pump with a 50 H. P. Fairbanks Morse engine to handle the water from 13 wells that supply a never ending supply of water. Erhart & Sons have never before had so many or as good hogs as are today of this farm. They have over 300 head and the greatest lot of early spring pigs the writer ever saw on any one farm. They are out of the herd sows that have so consistently been producing the Erhart prize winners and by his great battery of herd boars, the grand champion Big Hadley, Jr., Col. Bob Wonder, by Big Bob Wonder; King Price Wonder, by King of Wonders; Big Bob Jumbo, by Robidoux, and the 1250 pound A Big Wonder. If you want a real herd boar get in touch with Erhart & Sons before they have been picked over. Mr. Erhart has one or two tried boars that some breeder could use to advantage, that will be priced reasonably. Write him today, mentioning Farmers Mail and Breeze.—Advertisement.

N. Kan. and S. Neb. and Iowa

BY JOHN W. JOHNSON.

W. T. Watson, Barnard, Kan., is an extensive breeder of fashionable and up to date

Poland Chinas. He has a fine crop of spring pigs numbering about 150 head and besides, a fine lot of fall gilts. Watson's Timm, by Fesse's Timm, heads the herd. Giant Ben 2nd, is also a big fellow that is in use in the herd. We are going to have more information about this herd later on.—Advertisement.

To have advertised Duroc Jerseys in the Farmers Mail and Breeze 14 years without missing a single issue, and without a single complaint to that publication from the hundreds of customers all over Kansas and a number of other states, is the record held by D. O. Bancroft, Osborne, Kan. Every year for 14 years I have visited Mr. Bancroft and his Duroc Jersey herd at Osborne, about July first and renewed his advertising contract. If you want to buy Duroc Jerseys you can't deal with a finer man than D. O. Bancroft, Osborne, Kan.—Advertisement.

Prize Winning Herd Boar.

Phillip Ackerman, of Lincoln, Kan., has a card announcement in this issue of Farmers Mail and Breeze that will be of special interest to many readers of this paper. Phillip is one of the Capper Pig Club boys and his offering at this time includes a 350 pound prize winning herd boar; gilts bred to farrow in September and 60 pound spring boars. Any of our readers wanting big type Poland Chinas should write at once to Phillip Ackerman. Please mention Farmers Mail and Breeze when writing.—Advertisement.

Duroc Jersey Boars.

O. L. Hite, R. 7, Topeka, Kan., is offering some nice, cherry red Duroc Jersey boars of March farrow, in this issue of Farmers Mail and Breeze. Mr. Hite reports his sales as good and urges readers of this paper to write him at once. He only has a few left and if they are not sold in a short time he will have to advance the price. These boars are sired by a Golden Model boar and out of a Colonel bred sow. The breeding is right in every line of the pedigree. Mr. Hite says the first check for \$25 gets the choice pig. If interested write at once, mentioning Farmers Mail and Breeze.—Advertisement.

Prewett's Poland Chinas.

W. A. Prewett, Asherville, Kan., has been a constant breeder of Poland Chinas for over 20 years to my personal knowledge. During all of that time he has been ready to improve his herd whenever he had the opportunity. A good part of north central Kansas has always looked to Prewett for stock as he has engaged his regular auctioneer, Col. H. S. Duncan, for Nov. 19 and on that date he will sell about 75 head. Last November he sold about 100 head. In this sale he will sell about 35 or 40 open gilts, both March gilts and gilts that will be older. A fine lot of March boars will be sold. The sale will be advertised in the Farmers Mail and Breeze in due time.—Advertisement.

Moser's Duroc Sale.

This is the last call for the Fern J. Moser sale of Duroc Jerseys at Sabetha, Kan., Friday, July 26. Mr. Moser gets his mail at Goff, Kan., but his sales are always held at Sabetha, Kan., in the big sales pavilion which will be nice and cool on this occasion. Two good hotels will furnish plenty of good accommodations. You still have plenty of time to get his catalog if you write today. It is an offering filled to the top with rare opportunities to buy the most fashionable of breeding and individuals that are splendid. There will be six herd boars, yearlings this fall, that should interest anyone needing a herd boar. A lot of fine young yearling gilts bred to farrow the last of September and October. Come to this sale. If you can't send bids to J. W. Johnson, care of F. J. Moser, Sabetha, Kan.—Advertisement.

Ninety Duroc Jersey Pigs.

L. L. Humes, Glen Elder, Kan., Mitchell county, is the well known proprietor of the Monarch herd of Duroc Jerseys. Last winter he attended the leading public sales of Duroc Jerseys in Nebraska and bought liberally of the best breeding and was careful to secure a good individual in every instance. His 90 spring pigs are as choice as any I have seen this summer. He has culled his boars down closely and will have a very fine choice ones for sale later on. His bred sow sale will be held in February and all spring and summer he has been trying to buy the right boar to use at the head of his herd in the future. The right boar was found last week in the W. H. Schroyer herd, at Miltonvale. Jones' Orion Cherry King, by Orion Cherry King and out of Highland King Lady is two years old last April and besides being as well bred as any boar in the west, is a splendid individual. Mr. Humes was indeed

HORSES.

28 Head of Beautiful Shetland Ponies for sale—7 spring colts, 6 yearlings, 2 two year olds and 3 to 6 year old mares. Browns, sorrels, red and white and black and white spotted. NOOFFLEET BROS., MOUND VALLEY, KANSAS.

PERCHERONS—BELGIANS—SHIRES After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. Fred Chandler, R. 7, Chariton, Ia. Above Kas. City.

Pleasant View Stock Farm Percherons and Herefords Two stallions, one coming 3, one coming 2; also one yearling of my own breeding; are good ones. Can show sire and dam. Also have a number of good bulls from 10 to 12 mo. old; can spare a few heifers bred to my herd bull, Dominator, a son of Domino. Mora E. Gideon, Emmett, Kansas

CHESTER WHITE OR O. I. C. HOGS. Chester White Private Sale A few tried sows to have summer litters and a few boars ready for service, for sale. F. C. GOOKIN, Russell, Kan.

Pure Chester White Pigs From prize-winning strains for sale. E. M. Rockards, Ozarkie, Kan.

O.I.C'S O.I.C'S O.I.C'S That large, heavyboned, early maturing type, combining size and QUALITY with prolificness. Just the kind you have been looking for, are bred on "GOLDEN RULE FARM," the place where "QUALITY" reigns. All ages for sale. F. J. GREINER, Box A, Mena, Ark.

CHESTER WHITE OR O. I. C. HOGS. Chester White Hogs Boar pigs to be shipped at 10 to 12 weeks of age. E. E. SMILEY, Perth, Kansas

Kansas Herd Chester Whites 12 September boars and 25 gilts same age. Very choice and as good as you ever saw. Most of them by Don Wildwood and gilts bred if desired to the champion Don Keokuk. Don't delay if you want them. ARTHUR MOSSE, R. D. 5, LEAVENWORTH, KAN.

HAMPSHIRE HOGS. One Herd Boar, few good extra good boars, tried, sows and a nice bunch of spring pigs from which I can mate up a few pairs and trios. Satisfaction guaranteed. George W. Peterson, Jr., Leonardville, Kan.

REGISTERED HAMPSHIRE PIGS -100 March pigs, pairs and trios not related. Extra well belted and most popular breeding. The beginner's opportunity. GEO. W. ELA, VALLEY FALLS, KANSAS Secretary Kansas Hampshire Association.

Howell's Hampshires Fall boars and gilts, spring pigs, grand sire, the undefeated Messenger Boy. F. T. HOWELL, FRANKFORT, KANSAS.

SHAW'S HAMPSHIRE 200 head Messenger Boy breeding. Bred sows and gilts, service boars, fall pigs, all immune, satisfaction guaranteed. WALTER SHAW, R. 1, Phone 3918, Derby, Kan. - WICHITA, KAN.

POLAND CHINA HOGS. WEANED PIGS \$15.00 1 brood sow, 11 bred gilts, \$75 to \$150. Big boned Spotted Polands, rangy and growthy. From prize winners. E. CASS, Collyer, Kan.

Large Type Polands Baby pigs, sows, bred or open. Priced for quick sale. Fashionable blood lines. Howard R. Ames, Byars, Okla.

Big Type Polands 350 pound registered boar (prize winner); gilts to farrow in September; spring boars 60 pounds. Phillip Ackerman, Lincoln, Kan.

WARREN'S Large Type POLANDS An outstanding son of Big Timm heads our sow herd, some that cost up to \$1200. Immunized spring boars or gilts with fashionable blood, size and quality. Guaranteed to please. Ezra T. Warren, Clearwater, Kan.

FAIRVIEW POLAND CHINAS Ten husky September boars. Also 75 choice March Pigs. Pairs and trios, not akin. All are pedigreed and priced to sell. F. L. WARE & SON, PAOLA, KANSAS.

Old Original Spotted Polands 12 fall and spring gilts bred to farrow in September. Also choice spring boars. Big Public Sale Oct. 2. ALFRED CARLSON, CLEBURNE, KANSAS

Townview Polands Herd headed by the great young boar, King Wonders Giant 77326, 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

McQUILLAN'S SPOTTED POLANDS Faulkner and other leading blood. 20 sows and gilts for early fall litters. Spring pigs, cut prices on orders of six or more. Am liable to be called to war, wish to reduce. Write today. BERNARD McQUILLAN, CLEARWATER, KANSAS

ERHART'S BIG POLANDS A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250 pound, a Big Wonder. All immune. A. J. ERHART & SONS, NESS CITY, KAN.

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.

DUROC JERSEY HOGS. DUROC BRED GILTS CHEAP 10 or 12 gilts out of sows sired by Crimson Model, Crimson Wonder, Illustrater, Critic B. and Golden Model 34th, and sired by Reed's Illustrater, Reed's Gano and Crimsons Golden Model and bred to Reed's King the Col. and Reeds Gano. All immunized. JOHN A. REED & SONS, LYONS, KANSAS

BOARS Cherry red Duroc Jersey boars of March farrow, sired by a Golden Model boar and out of a Col. sow; second dam by Tat A Walla. Grand champion breeding all the way through. First check for \$25 gets choice. O. L. HITE, R. 7, Topeka, Kan.

Blue Ribbon Durocs No boar sale this fall but 25 reserved spring boars that are choice at \$25 each while they last. Lee Bros. & Cook, Harveyville, Kan. (Wabunsee County)

DUROC JERSEY HOGS.
Duroc-Jersey March Pigs
 Out of first price and champion sows and boars. Pedigree with every pig. Write quick. W. J. Harrison, Axtell, Kan.

Garrett's Durocs Ten Fall Gilts, bred for August and September farrow. 110 spring pigs ready to ship. E. T. & W. J. Garrett, Steele City, Nebraska

Bancroft's Durocs Guaranteed Immune
 September 1917 gilts bred to farrow in September 1918. Plenty of early March boars.
 D. O. BANCROFT, OSBORNE, KANSAS

TWO BIG SALES
 Sept. 4, Duroc Boar and Bred Gilt Sale. Boars bred by H & B's Pathfinder. Gilts bred to H & B's Pathfinder. Sept. 5, complete dispersion of Red Polled herd.
 W. L. McBride, Parker, Kan.

BONNIE VIEW STOCK FARM
 DUROC-JERSEYS
 Fall gilts, and spring pigs; prize winning blood for sale at reasonable prices.
 SEARLE & COTTLE, BERRYTON, KANSAS

TRUMBO'S DUROCS
 Herd boars Constructor and Constructor Jr. 1st prize boar at Kansas State Fair 1917. Bred gilts and immunized spring boars, priced for quick sale.
 W. W. TRUMBO, Feasbody, Kan.

MOSER'S BIG TYPE DUROCS
 A few extra good fall boars for sale. Bred gilt sale in July.
 F. J. MOSER, GOFF, KANSAS

Duroc-Jersey Hogs
 Weaned gilts, no akin bred gilts or sows with litters.
 Johnson Workman, Russell, Kan.

OTEY'S DUROCS
 Hercules 3d, a giant 900-pound boar in breeding flesh, and Pathfinder Chief 2nd, the largest and smoothest of all the sons of the mighty Pathfinder, head our herd. 50 spring boars, buy NOW.
 W. W. OTEY & SONS, WINFIELD, KANSAS.

Shepherd's Durocs
 A few bred gilts by King Col. I Am out of Lady Illustrater and bred to the champion, Crimson Gano for fall litters; also a few bred tried sows. Spring pigs both sex all immunized. G. M. Shepherd, Lyons, Kan.

BLACK'S DUROCS
 Herd headed by Red Cross Pathfinder, assisted by Giant Crimson. Herd sows, big, growthy, high backed kind, fashionable breeding. Bred gilts, spring pigs, pairs and trios unrelated. If you want good Durocs we can please you.
 C. H. BLACK, MARION, KAN.

Long View Farm Durocs
 are the large kind that carry lots of high priced meat. Herd is headed by Lenhart's Col., a large, massive hog with lots of quality. 50 of his pigs on hand now, all good ones. Description guaranteed. Prices reasonable.
 S. H. LENHART & SONS, HOPE, KANSAS

McComas' Durocs
 Big roomy herd sows, daughters and granddaughters of up to date grand champions on both sides, with litters by champion and sons of champions. If you want spring boars and gilts, something good, write
 W. D. McCOMAS, WICHITA, KANSAS

Wooddell's Durocs
 Chief's Wonder, a giant junior yearling heads our herd. The finest bunch of spring boars to offer I ever raised. Write me your wants, or come and see them.
 G. B. WOODDELL, WINFIELD, KANSAS

Jones Sells on Approval
 March boars out of Orion Cherry King dams, sired by King's Col. 6th. In breeding and as individuals these challenge the best.
 W. W. JONES, CLAY CENTER, KANSAS.

Eshelman's Duroc Boars
 Of Good Enough Model Second and Colonel breeding. Send your check for \$25 for spring boars weighing 50 lbs. or more, a check for \$30 gets you an extra fine spring boar weighing 75 lbs. or more and immunized. They are going and growing fast. Send your checks for boars of thousand pound ancestry, to
 A. L. Eshelman, Grand View Farm, Abilene, Kan.

John's Orion
 The greatest son of Joe Orion 2nd. The 1040 pound champion and sire of champions. The greatest Orion Chief boar west of the Mississippi comes to head the herd of
 F. E. GWIN & SONS, Morrowville, Kansas
 Boar sale in Oct. Bred sow sale in Feb.

Defender-Pathfinder
 Spring pigs, in pairs and trios, of the above breeding for immediate delivery, at \$25 each.
 W. H. Wheeler & Sons, Garden City, Kan.

Royal Grand Wonder
 Is producing the big kind. Sows bred to him sold in my February sale at highest average of any Duroc sale in Kansas. I have for sale some splendid gilts bred to this great boar for September farrow. Also fall boars ready for service. Entire herd immune. Come and see the herd or write me.
 B. R. Anderson, McPherson, Kan.

fortunate in being able to secure this great boar and he will look good in the Humes catalog in his bred sow sale in February. He will sell his present herd boar, five years old and at a bargain. He is by old Defender and his dam was of Crimson Wonder breeding. Write him.—Advertisement.

Big Bobby Wonder 2nd.
 Ed. H. Brunnermer, Jewell, Kan., claims Feb. 10 for his big Poland China bred sow sale which will be held in the sale pavillion at the fair grounds. 20 splendid fall yearlings, by Big Bone Monarch and out of his famous half ton boar, Big Bobby Wonder 2nd dams. 25 spring gilts, about half of them by Big Bobby Wonder 2nd go in the sale and the other 15 sows. It will be one of the strongest offerings made in Kansas in February and a goodly number of these young sows will be bred to a splendid yearling boar bought of Fred Roof of Fairfield, Ia. The sale will be advertised in the Farmers Mail and Breeze in due time. Mr. Brunnermer has called off his November sale and will have some choice boars for sale. He has six dandy fall boars he will price right for quick sale. Better write him.—Advertisement.

Woody's Duroc Jerseys.
 Henry Woody, Barnard, Kan., Lincoln county, breeds Duroc Jerseys and is not satisfied to just breed the ordinary kind. This statement is borne out by a recent inspection of his herd. His herd sows, while not as large in point of numbers, is one of the best I have seen this year. Mr. Woody has bought liberally from good Iowa and Nebraska herds and while he has not paid any big prices, he has paid enough to secure the kind that will strengthen any herd in Kansas. He is using a yearling boar, a grandson of old Gano and he is more than satisfied with this season's crop of pigs by him. He will start his advertisement soon in the Farmers Mail and Breeze. He will offer a fine string of March boars and gilts, sired by popular Iowa boars and out of sows that are equally as well bred. Mr. Woody also breeds Hereford cattle and has a nice herd.—Advertisement.

Kemplin's Duroc Jerseys.
 R. E. Kemplin, Corning, Kan., Nemaha county, is a capable breeder of Duroc Jerseys and a thrifty farmer, visited last week. I have met him several times at Duroc Jersey sales and he has always been interested in the good ones. His herd boar, Chief Critic, by Bayne's Critic, by Crimston Critic and out of a sow by old Lafollette's Last, is a big massive fellow and good all over. The spring pigs by him indicate his ability as a breeder. Last winter Mr. Kemplin bought at least one sow that indicates pretty well his desire to possess the best to be had. She is recorded as Illustrater Nell, sired by The King, and out of a famous boar, the great show boar. She is raising a splendid litter by King Sensation, a famous boar and a litter brother to the famous Great Sensation. Mr. Kemplin does not expect to hold a sale but his advertisement will appear shortly in the Farmers Mail and Breeze in which he will offer a fine sale March boars and gilts.—Advertisement.

Nebraska and Iowa
 BY JESSE R. JOHNSON

Ed. Kern, of Stanton, Neb., closes the big Nebraska August Duroc Jersey sale circuit on Wednesday, Aug. 7th. He sells 50 head largely sired by or bred to the much talked of sire, Big Sensation. Of the 40 tried sows and spring yearlings, 30 will be bred to Great Sensation and 10 to his litter brother, Top Sensation. Two open gilts also sold, sired by Great Sensation, one of fall and one of spring farrow. Four fall boars and four spring boars all by Great Sensation make up the offering. Mr. Kern has this spring sold, since Jan. first, thirteen fall boars by Great Sensation for an average of over \$1,000, including one that sold for \$400. Since selling for \$2,000 Top Sensation is one of the largest and smoothest Duroc boars living. That part of the offering not sired by him is by such sires as Pathfinder, Col. Uneda; King The Col. and other prominent sires. Write for catalog. Send bids to Jesse R. or J. W. Johnson in Mr. Kern's care at Stanton, Neb.—Advertisement.

Putman's King Col. Sale.
 W. M. Putman & Son, the veteran Duroc Jersey breeders and showmen of Tecumseh, Neb., open the big August Nebraska bred sow sale circuit at Tecumseh, on Monday, August 5th. Never before have the Putmans been so well prepared to give buyers real values in bred sows and herd boars. It will be in reality a King's Col. sale. Many of the best sows and gilts are daughters of the noted sire King's Col., one of the greatest sires of the breed and a big per cent of the offering will be bred to King's Col. Again, the best son of the old boar and a better boar than his sire was at the same age. Several good sons of King's Col. will be sold and among them are several outstanding herd boar prospects. Included in the sale will be twenty tried sows as good as, and in fact just the kind that are being retained in the herd. Among the females are daughters of Pathfinder; Long Wonder; Cherry Chief; Great Sensation and other noted boars. One third of them daughters of King's Col. Write for catalog and examine it carefully. Send bids to Jesse R. or J. W. Johnson in care of W. M. Putman & Son, Tecumseh, Neb.—Advertisement.

Ahrens Big Duroc Sale.
 Tuesday, Aug. 6, is the date of Ahrens Bros. big summer sale of Durocs. They have picked out 90 head from their herd of over 500 head for this sale. About 80 head of which will be females, half of them will be bred and the others sell open. The big attractions of the sale will be the females that sell bred to the wonderful boar, King Orion, Jr., a show boar with a record almost unequaled and a sire of great merit. He has size and smoothness and is conceded to be one of the best living boars of the breed. Columbus Gano, the other herd boar, while not so large and not nearly so good a boar, is equal to King Orion Jr. as a sire, and the gilts that go in the sale by him and bred to King Orion, Jr., will prove great investments. A big lot of the offering is the get of Columbus Gano, including 5 fall boars. The same number of spring boars go in, sired by Sensation Wonder 4th and Columbus Gano. All leading strains will be represented as the Ahrens Bros. have been heavy buyers at the best sales for several seasons. Write early for catalog. Mention this paper. Send bids to Jesse R. or J. W. Johnson in care of Ahrens Bros., Columbus, Neb.—Advertisement.

No man is rich enough to eat what his country needs.

F. J. Moser's Great Duroc-Jersey Sale

Most fashionable and popular blood lines known to the breed right in this sale.

Sabetha, Kan., Friday, July 26

Sale pavillion

Remember there is not a common individual or one of common breeding in this sale.

HERE IS THE LINEUP:

20 last of Sept. and Oct. yearling gilts sired by Highview Chief's Col. and bred to Ragha Disturber and Illustrater Orion King, by Orion Cherry King for last of August and September farrow.

Six fall boars, same age as the fall gilts and the same breeding. Everyone of them tops and right to the letter. Four tried sows and three long yearling gilts, all bred.

Now listen, there will be two boars and one gilt by old Pathfinder Feb., 1918, farrow and out of the \$805 top Proud Colonel sow, sold in the Hanks & Bishop sale last winter. These out of a litter of 17 farrowed and 10 raised. Probably the most valuable litter in Kansas.

Listen again, there will be one boar and three gilts, Feb. 7 farrow, by Cherry King Disturber and out of Premier Gano dam.

Write for catalog today.

F. J. Moser, Goff, Kansas

Auctioneers: W. M. Putman, Roy Kisner.
 J. W. & J. R. Johnson, Fieldmen.

Mention this paper when you write. I like to know where you saw my ad.

Duroc-Jersey Bred Gilts

Special Private Sale for 30 Days

20 splendid young sows that will farrow their first litters during last of August and the first of September. These gilts were yearlings in April and May and have been carefully grown. They will weigh better than 300 pounds in ordinary breeding condition. They were sired by Iowa Improver and out of Junior Orion Cherry King sows, with a few by the great sire mentioned last. All are bred for last of August and September first farrow to Watt's Orion, a great boar and a grandson of Orion Cherry King. Where it is possible I would much prefer you see these splendid young sows but I will please you with a mail order if you give me the opportunity.

Ernest Fear, Bala, Riley County, Kan.

Public Auction, Monday, Aug. 5, Kansas City, Mo.

MISSOURI AUCTION SCHOOL

Will open a four weeks term of Auction School, where both real and imaginary property is sold by the prospective auctioneers from many states. Term will last four weeks. A great opportunity for a man that is auctioneeringly inclined as so many young auctioneers have gone to war, that it is leaving a great opening for the older men. Our last term we had students up to the rise of fifty years from eleven states and Canada. Write for big 1918 free Annual and be with us on August 5th.

Take Independence Ave. car at depot direct to our office rooms, 300-301 Walnut St.

Park Place Shorthorns

Bulls in service, Imported Bapton Corporal, Imported British Emblem and Rosewood Dale by Avondale. To sell right now 50 head of high class Scotch topped cows and heifers, all heavy in calf or with calf at foot; also a few young bulls.

PARK E. SALTER, Fourth Nat'l Bank Bldg., Phone Market 2087 WICHITA, 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 CATTLE.

PURE BRED DAIRY SHORTHORNS

Double Marys (pure Bates), and Rose of Sharon families. Some fine young bulls. R. M. ANDERSON, Solot, Kan.

Elmwood Shorthorns

2 bulls for sale, one a 2 year old and a good sire, and one 10 mo. old. Come or write. R. E. Halloy, Wilsey, Kansas

LIVESTOCK AUCTIONEERS.

Jas. T. McCulloch, Clay Center, Kan.

My reputation is built upon the service you receive. Write, phone or wire.

HOMER T. RULE

LIVESTOCK AUCTIONEER. Write or wire for dates.

REFERENCES: Mail & Breeze, fieldmen and breeders for whom I have sold

HOMER T. RULE, OTTAWA, KANSAS

Meuser & Co's Shorthorns

Nine nice young Scotch topped bulls, reds and roans, ready for service. They are by Sycamore Chunk, by Mistletoe Archer and out of cows that carry the blood of such sires as Choice Goods and Victor Orange. They are good and priced right. Farm 1 1/2 miles from Anson and 7 1/2 from Conway Springs, Kan.

WM. L. MEUSER, MANAGER, ANSON, KAN.

ABERDEEN ANGUS CATTLE.

Aberdeen Angus Cattle
O. H. Sparks, Sharon Springs, Kansas, can furnish my bulls for northwest Kansas.
Johnson Workman, Russell, Kan.

HEREFORD CATTLE.

Cedar Summit Herd of Herefords

Seventy-seven head; 45 cows and heifers, 5 registered bulls, 27 calves and steers. One third of herd registered. \$100 a head all around. J. M. GILBERT, HOWARD, KAN.

PRIME, HEREFORDS

Young bulls and females for sale, sired by the 2500 pound Anxiety-March-On bull, Enoch 3d. Prices very reasonable. Jackson & Counter, Topeka or Maple Hill, Kan.

Blue Ribbon Herefords

10 bulls, 10 months old at \$150 each, for quick sales. Popular breeding and choice individuals.

Lee Bros. & Cook, Harveyville, Kan. (Wabaunsee County)

For Sale—Entire Herd 30 Herefords

9 young non-registered cows with spring calves and reeds; 6 yearling heifers; two registered 1400 pound cows with calves; 1 registered yearling bull; 2 year old Beau Brummel herd bull.

GEO. JONES, UNIONTOWN, KANSAS

RED POLLED CATTLE.

FOSTER'S RED POLLS Write for prices on breeding stock. C. E. FOSTER, R. R. 4, Eldorado, Kansas.

Red Polled Bulls

Two extra good ones, year old, ready for service. Priced for quick sale. A. E. WHITZEL, STERLING, KAN.

Pleasant View Stock Farm Registered Red Polled cattle. For sale, a few choice young bulls, cows and heifers. HALLOREN & GAMBERILL, OTTAWA, KANSAS

Morrison's RED POLLS

Young stock for sale. Chas. Morrison & Son, Phillipsburg, Kansas

JERSEY CATTLE.

Hillcroft Farms' Jerseys

Herd headed by Queen's Fairy Boy, a Register of Merit bull out of a Register of Merit dam, by Raleigh's Fairy Boy, an undefeated champion. Sire of more R. of M. cows than any other imported bull. Write for pedigree. M. L. Golladay, Prop., Holden, Mo.

Four Nice Jersey Bull Calves

For sale 4 to 13 months old—the oldest an extra good one. Two splendid springers, fresh in a few days, bred to Royal Mississ Toronto. S. S. Smith, Clay Center, Kansas.

GUERNSEY CATTLE.

FOR SALE, one high grade Guernsey cow, one registered Jersey cow, two high grade Guernsey bull calves, one old enough for service and one 4 months old. These are all well bred stock and priced reasonable for quick sale. Write Dr. E. G. L. Harbour, Box 113, Lawrence, Kan.

HOLSTEIN CATTLE.

FOR SALE—Four Pure Bred Holstein Bull Calves well marked, from 6 to 8 months old. Priced from \$100 to \$200. OTTO STUEWE, ALMA, KANSAS.

HOLSTEIN CALVES, 25 heifers and 4 bulls, 13-16 pure, 5 weeks old; from heavy milkers. \$25 each. Crated for shipment anywhere. Send orders to write EDGWOOD FARMS, WHITEWATER, WIS.

Braeburn Holsteins

Heifers by a bull from this herd will yield 10-50% more than their dams. H. B. Cowles, 808 Kansas Ave., Topeka, Kan.

OAK HILL FARM'S HOLSTEIN CATTLE

Yearling bred heifers and bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed. BEN SCHNEIDER, Nortonville, Kan.

CHOICE HOLSTEIN CALVES 12 heifers and 3 bulls, 16-16ths pure, five to seven weeks old, dandy marked and from heavy milkers. \$25 each. Crated for shipment anywhere. FERNWOOD FARMS, WAUWATOSA, WIS.

REGISTERED HOLSTEIN BULL CALVES

Five to six months old, light colors. \$50 to \$75. One fifteen months old, whose dam has yearly record of 10 lbs. of butter. G. E. BERRY, Garnett, Kansas.

Registered Holstein Bulls

From 11 months to 1 month of age, for sale. Write for pictures and prices. S. E. ROSS, R. 4, IOLA, KANSAS

If you want **GREATER** dairy profits, learn about **PURE-BRED HOLSTEINS**. The most profitable breed on earth. Information free. THE HOLSTEIN-FRIESIAN ASS'N OF AMERICA, Box 292, BRATTLEBORO, VT.



Maplewood Farm Holstein Special

We have decided to sell 20 of our purebred registered heifers. Two years old or coming two. The kind that you always find at Maplewood Farm. They are bred to freshen in the fall and winter. We are short of pasture and will sell them at reasonable prices. Come to see them at once.

MOTT BROS., HERINGTON, KANSAS

Nebraska's Biggest Duroc-Jersey Events

Three Big Sales

185 Head—Herd Boars Fit to Head Any Herd and Sows Carrying \$5,000 Litters—185 Head

Putman's King's Col. Sale

Tecumseh, Nebraska
Monday, August 5

45 Head, All Immuned

35 females and 10 real herd boars. King's Cols., Pathfinders, Cherry Chiefs, etc. Mostly bred to KING'S COL. AGAIN, the greatest son of King's Col. Others to KING ORION and a son of Col. Uneda. The offering includes 20 of the best tried sows we ever owned and boars good enough to head any herd in America. Write for catalog. Mention this paper.

W. M. Putman & Son
Tecumseh, Nebraska

Ahrens' King Orion Jr. Sale

Columbus, Nebraska
Tuesday, August 6

90 Head, All Immuned

Picked from our herd of over 500 head. 80 tried sows, spring and fall yearlings. 40 head bred to the great King Orion Jr., second to no sire of the breed. Others to Columbus Gano the best breeding boar of the Gano family. 40 open gilts that represent all leading strains. Just tops go in. 10 fall boars, many of them real herd headers. Write for catalog. Mention this paper. Sale on farm 4 miles from town.

Ahrens Bros.
Columbus, Nebraska

Kern's Great Sensation Sale

Stanton, Nebraska
Wednesday, August 7

50 Immuned Tops

40 tried sows, and spring yearlings. 30 head bred to Great Sensation, the most talked of boar of the breed. 10 to his litter brother, TOP SENSATION. Daughters of King The Col., Pathfinder, Critic D., Col. Uneda, etc. 8 real herd boars, 4 spring and 4 fall sons of Great Sensation and reserved especially for this sale. Write for catalog. Mention this paper.

Ed. Kern
Stanton, Nebraska

Write for Big Illustrated Catalogs to Parties Making the Sales.

Auctioneers—Cols. N. G. Kraschel, A. W. Thompson. Fieldmen—Jesse R. Johnson, J. W. Johnson.

HOLSTEIN CATTLE.

Young Registered Holstein Bulls with good A. R. O. backing. H. N. Holceman, Meade, Kansas

Segrist & Stephenson, Holton, Kansas Breeders exclusively of purebred, prize-winning, record-breaking Holsteins. Correspondence solicited. Address as above.

Registered Holsteins

If you want big producers, males and females all our own breeding, write us. Lilac Dairy Farm, Route 2, Topeka, Kansas.

Thrifty Holstein Calves

either sex, practically pure-breds from high producing dams and registered bulls five to seven weeks old \$27.50 express prepaid. Safe delivery and guaranteed to meet with your approval. Also 50 registered cows and heifers and 100 high grade young cows and two year old heifers. **MAGEE DAIRY FARM, CHANUTE, KAN.**

ALBECHAR HOLSTEINS

A few young bulls, of good breeding and individuality and of serviceable age, for sale. Write for prices to

Albechar Holstein Farm
Robinson & Shultz, Independence, Kan.

HOLSTEIN CATTLE.

HOLSTEIN CATTLE.

June and July Holstein Bargains

60 head of choice two-year-old high grade heifers bred to King Segis bulls to freshen in June and July. 50 springing cows, of good ages.

150 Heifers bred to freshen this fall.

19 registered bulls ranging in ages from six months to two years. Some of these bulls are of King Segis and good enough to head any herd. 25 registered cows and heifers; some of them of A. R. O. breeding. A few high grade heifer calves at \$30 express paid. When looking for quality and milk production come to the Hope Holstein Farm. Shipments can be made on Mo. Pacific, Santa Fe and Rock Island.

HOPE HOLSTEIN FARM

Address, M. A. Anderson, Prop., Hope, Dickinson County, Kan.

The Best Bargain You Will Ever Get

8 registered Holstein cows all young, some have official records, and 2 heifers, priced to sell quickly. C. H. HIGGINBOTHAM, ROSSVILLE, KANSAS.

Blue Ribbon Holsteins 3 bred heifers and a registered bull \$325

On account of several of our men going to the harvest fields we will make very special prices on 30 heavy milking cows. These cows are good individuals and giving a nice flow of milk. Our prices for next 20 days will be considerably less than such cows are worth. Come at once if you want these bargains.

LEE BROS. & COOK, Harveyville, Wabaunsee County, Kansas
Wire, Phone, or write when you are coming.



Bringing the Farm to the Railroad

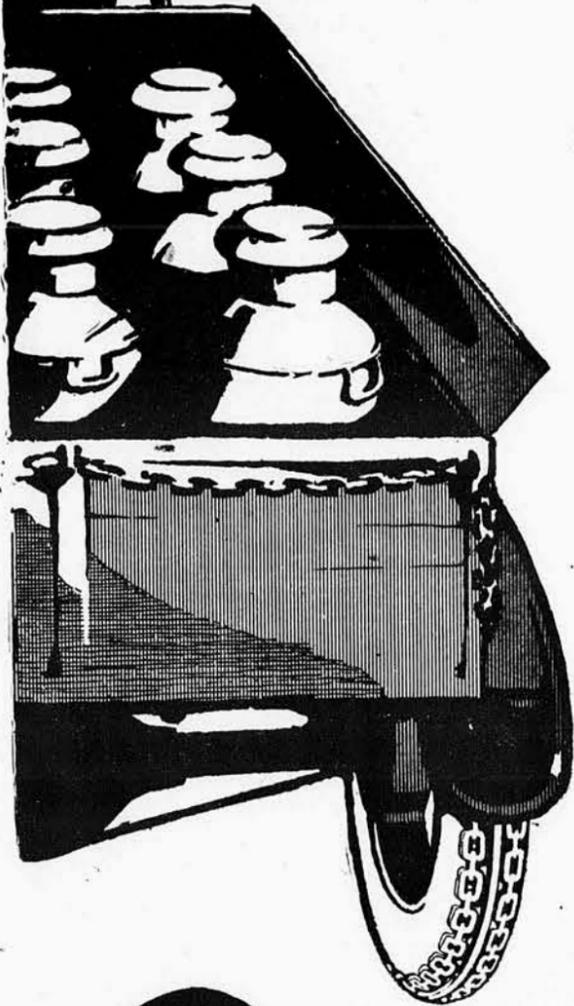
Since the coming of the motor car, the remote farm is no longer remote. Distance has been conquered. Miles have been shortened. Minutes have taken the place of hours spent in transportation.

In this transformation, the most important advantage to the farmer is in being brought next door to the railroad.

Milk and other perishable products can be marketed quickly. Needed supplies are more available. The farmer is in direct touch with the world.

Using his car largely for business, the modern farmer treats his car as a business proposition. Equipment is purchased with extreme care and judgment. Values are studied. Mileage records are kept carefully.

That is why the sales of United States Tires are increasing so fast in prosperous farming communities. They have demonstrated not only long-mileage qualities but greater reliability. They make your car more useful. They give a bigger return on your investment.



United States Tires are Good Tires

Wherever you live or whatever car you drive, there is a United States Tire built especially to fit your conditions. You have a variety of treads and types from which to choose but the quality and values are always United States standards.

Any United States Sales and Service Depot will cheerfully aid you.

For passenger cars—'Usco', 'Chain', 'Royal Cord', 'Nobby' and 'Plain'. Also Tires for Motor Trucks, Motorcycles, Bicycles and Airplanes.

United States Tubes and Tire Accessories Have All the Sterling Worth and Wear that Make United States Tires Supreme.

'Usco' 'Chain'

