

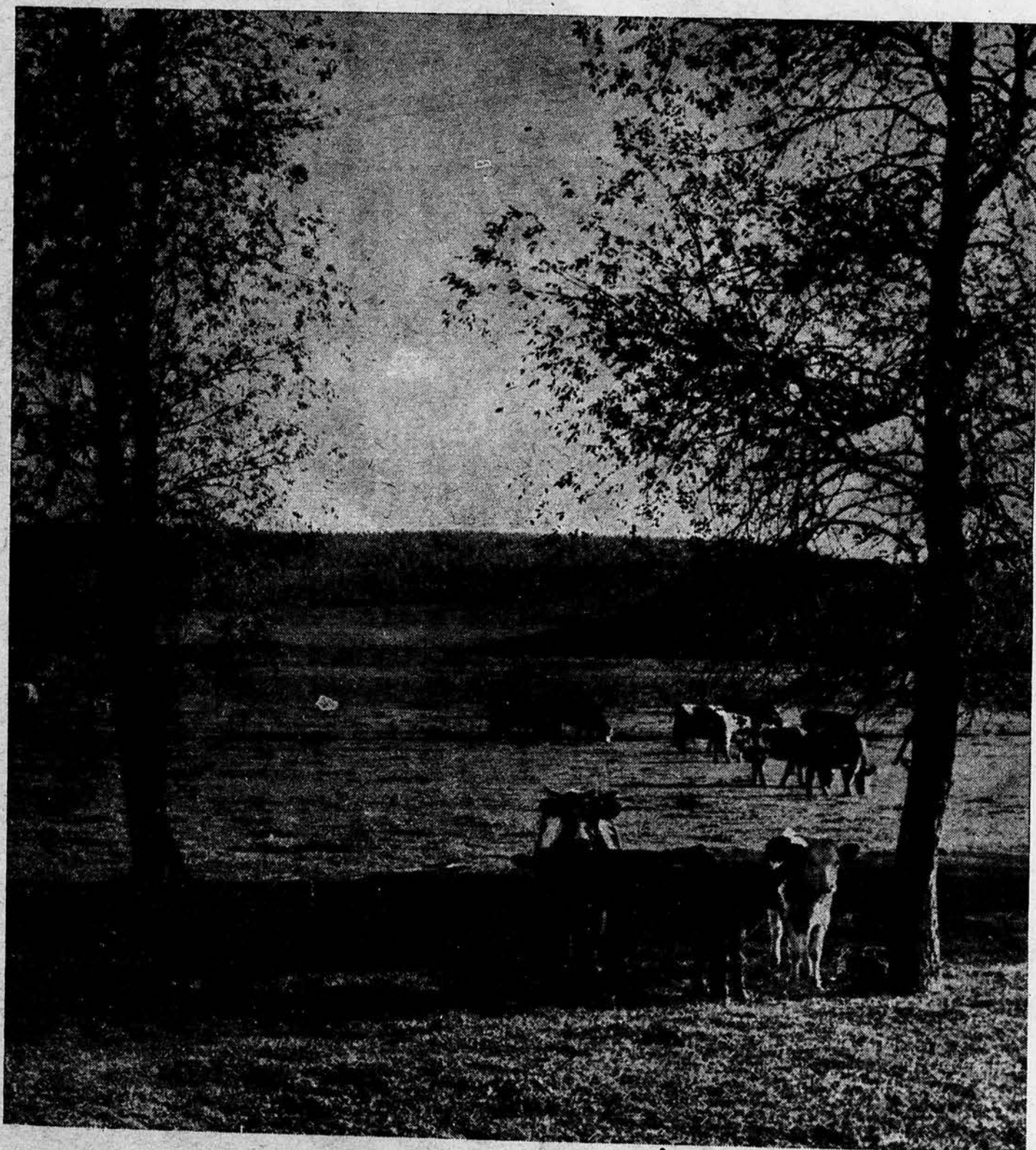
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The FARMERS MAIL AND BREEZE

Vol. 46

July 15, 1916



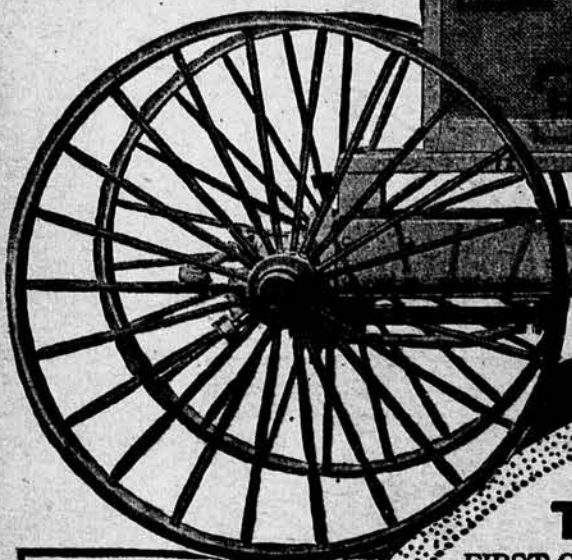
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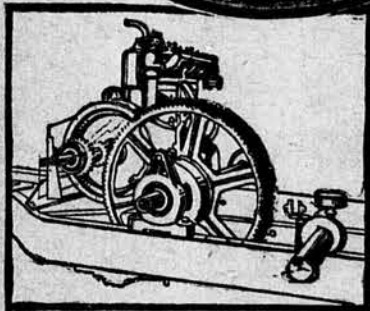
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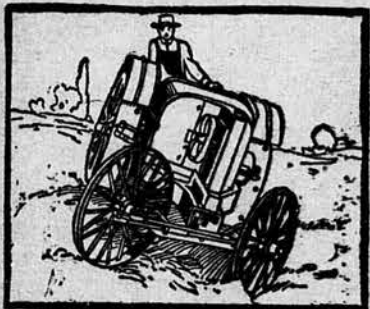
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"SPEAKS FOR ITSELF"
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The Parrett Tractor was designed and built along the above common sense lines. It is strictly a One-Man All-Purpose outfit. It is large enough to pull three 14-inch bottom plows in any kind of soil WITHOUT SIDE DRAFT, yet small enough to be handled and operated easily under all conditions. The Parrett weighs 5,200 pounds. It is heavy enough to disc, harrow, drill and seed your land, yet light enough to not pack the soil. It is strong enough for road work and fast enough for hauling. It gives 25 horse power on the belt, which is plenty for

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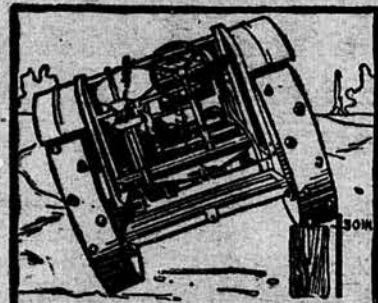
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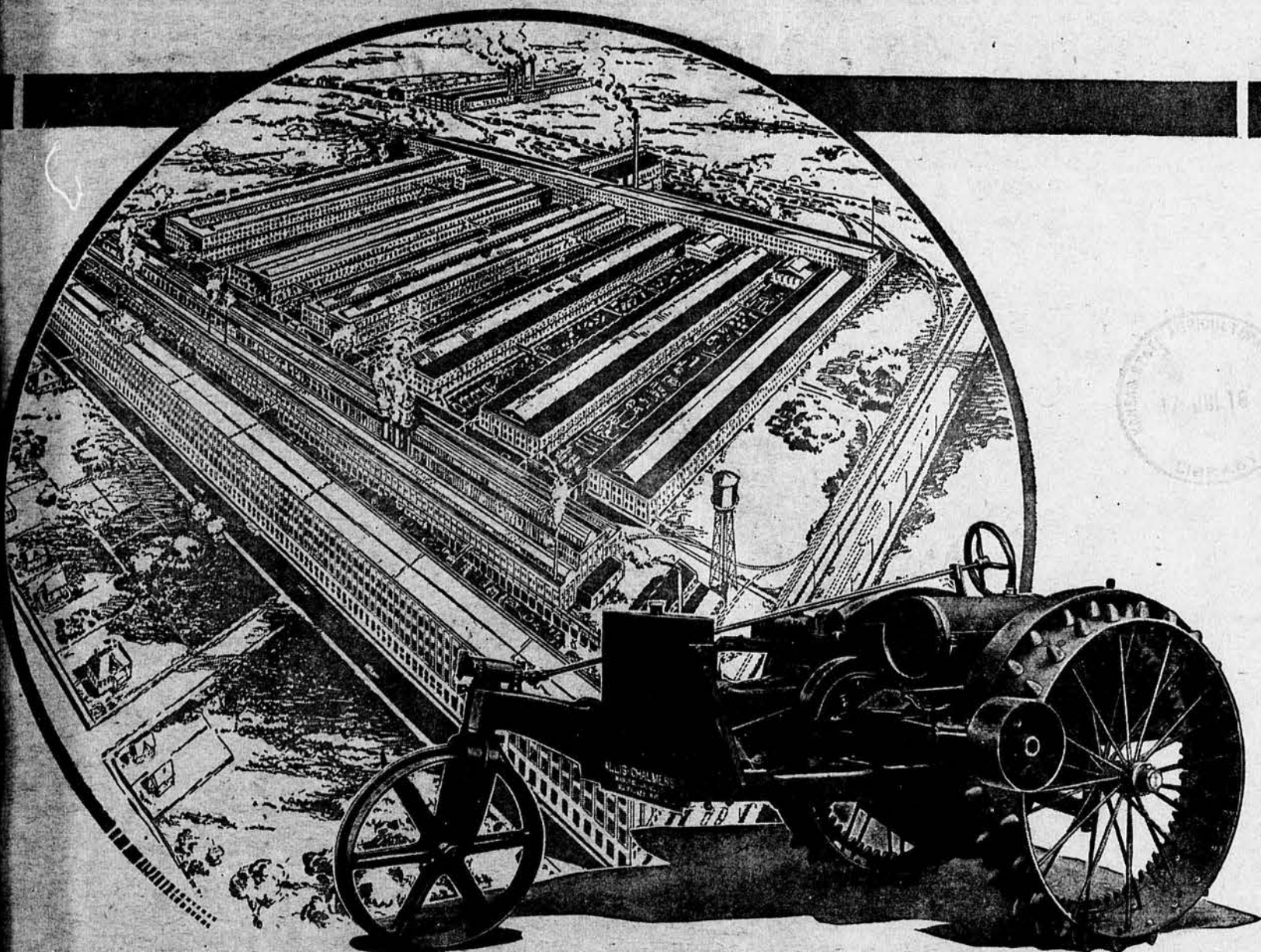
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THE ability of a tractor to do is no greater than the proven ability of the plant behind it to do. Back of the Allis-Chalmers Farm Tractor stand the most expert engineering ability, the highest trained engine building talent, the great manufacturing resources in the country.

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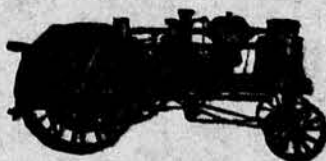
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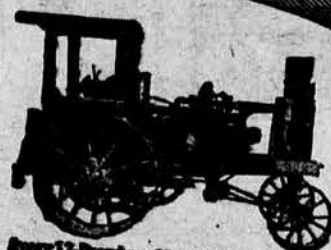
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Milwaukee, Wis.



Avery 5-Drawbar, 10-20 H. P. Tractor
Price, \$365 Cash



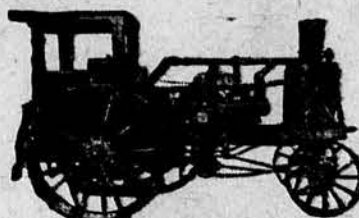
Avery 8-Drawbar, 18-25 H. P. Tractor
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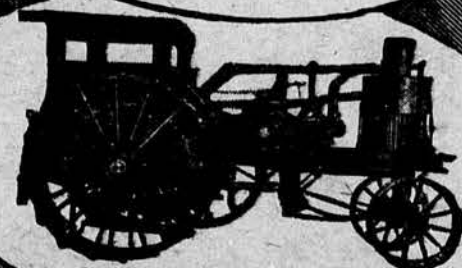
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The Avery line of Tractors in six sizes, Plows in seven sizes and Separators in seven sizes gives you the opportunity of selecting a complete outfit, all built by one company, in a size to exactly fit your needs, from the most complete and up-to-date line of Power Farming and Threshing Machinery built.

No Other Outfits Have Met Such Tests

Avery Tractors and Plows have also met the test of competitive contests and demonstrations. Avery machines were the only make entered in every Winnipeg Motor and Plow Contest. They have been entered in all of the Fremont Plowing Demonstrations for the past three years. They were entered in all six of the big Plowing Demonstrations held last year at Champaign, Bloomington, Enid, Hutchinson, Fremont and Sioux Falls. They are entered in all eight of the National Tractor Demonstrations this year.

You will always find Avery Tractors and Plows entered in every important contest and demonstration. We're always glad to show them in competition with others.

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Avery Tractors and Plows are the only make of tractors and plows which have been proven out by all of these tests. They have met every kind of a test that is known and have proved that they will do what we claim for them and even more.

Learn What Tractor Farming With An Avery Outfit Will Do For You

DON'T put off investigating what Tractor Farming with an Avery Outfit will do for you. An Avery Tractor will give you the power you need to practice best farming methods. With it you can plow deep and do all your work in the right way at just the right time, which means bigger crops.

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Built in Two Sizes—
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Avery "Yellow-Fellow" Separator
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The five larger sizes of Avery Tractors shown above are all built alike—they are of exactly the same design. They have slow speed, heavy duty special tractor motors.

Avery motors have renewable inner cylinder walls, which makes it possible to replace these parts, if needed, without having to buy complete new cylinders.

They have extra large crankshafts—one-half or more than the diameter of the cylinders. No owner has ever broken one.

They have two speeds and a double spur gear drive to both rear wheels. No single speed, single drive wheel or sprocket chain transmission is used.

Avery Tractors also have special sliding frames which make possible the elimination of the intermediate gear, shaft, and boxings, resulting in more power being delivered at the drawbar. An Avery Tractor has the least gears, the least shafing and the least bearings of any two speed, double drive tractor built.

Furthermore, no fuel pump, no water pump, no fan and no outside lubricator are used in the construction of these Tractors. Avery Plows are the original patented "Self-Lift." They are all built with our "Power Lift-Self Drop" Device which enables one man or boy to operate the entire outfit.

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THE FARMERS MAIL AND BREEZE

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More Power is Needed

Tractors are Winning in Kansas Because They Fill an Important Place in Better Farming

By F. B. NICHOLS, Associate Editor



A FAR LARGER use than ever is being made of power farming this year in Kansas. The number of tractors at work on Kansas farms is about twice that of last year, and this record probably will be increased to a considerable extent before the end of the season. Much interest has been taken in the tractor demonstrations that have been given over the state, and the display at Hutchinson, July 24 to 28, also attracting attention. The power farming movement is winning in Kansas; the main reasons for this success are:



There is a Special Need for Tractors in Wheat Farming in Kansas; a Great Deal of Power is Required in Plowing.

Tractors will increase the profits in farming when they are used properly. They are not adapted to all farms, but they have a place on several times as many places as they now are on.

When engines are used properly they help to increase the crop yields. This is especially true in wheat growing; because deep, early plowing at the first of the season—at a time when it is difficult to plow deeply and rapidly with horses—usually will produce the largest yields and greatest profits. The Kansas experiment station has effected a difference of more than 30 bushels an acre between early, deep preparation of the soil and seedbed and late, shallow plowing. Even a small difference in these yields of high wheat prices will pay for a tractor quickly.

The proper use of engines will be a help to the horse industry of the state. Tractors can be used for the hard, killing work, and this will allow the use of horses for the lighter farm labor. The horses are just as efficient as geldings for the lighter work, and they will produce a colt at the same time, which will help to reduce the cost of the power department. A good colt is worth \$100 in weaning time. Tractors will increase the Kansas colt crop.

Tractors help in saving feed efficiently. A farmer owns a tractor he is likely to save much of the sorghum and corn crops in a silo, for he has the power to run the cutter at the time he wishes to cut it. In many cases he will buy a separator, so his threshing can be done at exactly the right time. If more separators had been available last summer millions of dollars' worth of wheat could have been saved that was lost.

A better and broader country life can be built up in the Middle West if tractors are used extensively. They will do away with much of the hard work, increase the profits and add an attraction to farming that is not equalled by the life of the city. Tractors are doing much to keep the boys on the farm.

Tractors are helping young farmers to increase their income at a time they need help. A man who knows how to run a tractor can in-

crease his income much above what it would be without this knowledge, and at a higher level than he can obtain in the city. He will thus stay with the country and develop into a good farmer instead of drifting to the city to work under a boss.

The remarkable increase in the efficiency of tractors in the last year has made it possible to use them much more extensively than ever. This efficiency will be still further increased. It is likely that the development will be much more rapid in the next five years than it has been in the last year. There is certain to be a much greater use of power farming in the Middle West than now is generally understood. Tractors will help in the development of an agriculture that never was equalled before.

The largest increase in the number of tractors in the last year has come in the central part of the state, in the main wheat belt. This was to be expected of course, for the conditions are especially favorable for the operation of engines in that section. More than this, there is a special need for engines to do the plowing in counties where there is a great deal of wheat raised. Early, deep plowing is a vital factor in getting the best yields of wheat, and this can be done with a tractor better than with horses because of the big capacity which the tractor has, and its ability to work long hours. There was a considerable use of

tractors in plowing at night in 1915, and it is likely that there will be a big increase in night work this season.

An interesting and encouraging thing in the tractor movement in Kansas is the variety of tasks that the tractors are being used for. Of course the principal work is plowing, but there is a vast amount of other work to which an engine is adapted. The movement is tending to encourage the use of other machinery, such for example as an extension in the building of silos. The filling of silos is a considerable task which is rather expensive when the machinery must all be hired, and even worse is the fact that one frequently is unable to get it when he needs it. This fact has perhaps been the greatest drag on the silo building movement in Kansas. When a tractor is available, however, the additional expense required in the purchase of a cutter is not great. When one has his own outfit he can run along slowly without the use of a big outfit of help, and the silage can be harvested at the proper time without a great deal of expense.

Indeed, the movement is taking much the same course as the motor car business. New work is being found constantly, and it is rapidly becoming a necessity on the larger farms, especially in the wheat belt. With the development in the efficiency of tractors is coming a larger appreciation of the im-

portance of giving them good care, and less engine trouble is developing than was the rule two or three years ago. More attention is being paid to the book of rules for the running of engines. Then the experience which farmers have had with motor cars and small gas engines has aided greatly in giving the preparation required for running a tractor.

A big interest is being taken in getting instruction from specialists who know of the problems that the man on a tractor encounters. There has been a great deal of attention given to the demonstrations over the state in the last year, and farmers have given much attention to getting personal instruction from the experts. A big work along this line has been done by the Kansas State Agricultural college. Several hundred young men took the work on traction engines in that institution last year, and they are now technically trained so they can manage engines properly. This work is under the immediate charge of W. H. Sanders, who has had wide experience with tractors in commercial work, and understands the problems in a practical way. The excellent work that is being done by the men who have completed this course is proof of the efficiency of the instruction.

This brings up the reflection that there is a great opportunity for the hired men in Kansas, who now can earn only ordinary wages, to greatly increase their earning power. High wages are being paid for good tractor operators; the pay frequently runs from \$5 to \$8 a day and in many cases higher. The training at Manhattan takes 10 weeks during the winter term, which starts the first week in January. It is an excellent financial investment for young men to take the time and money required for this work.

It is thru the work of the skillful operators of tractors that the really good results are being obtained. A man who can operate a tractor properly will increase the life of the machine greatly and in addition he will get more efficiency into the work that is done. This is a matter that is not appreciated properly by many men, and as a result the tractors are not producing the profits

they should. A visit to a demonstration, where the engines are in charge of experts, aids greatly in solving the problems in engine management which one may have. In many cases there are little things which come up in regard to the care of an engine that make all the difference between success or failure in its operation, and a talk with a specialist will solve these problems quickly. The man with a liking for machinery, of course, has little trouble with his tractor.



Tractors are Being Used for Many Kinds of Farm Work and They are Demonstrating That There is a Large Range of Effort to Which They are Adapted. With This Development in Usefulness is Coming an Increase in Efficiency, Which is Making Their Place Still More Secure.

DEPARTMENT EDITORS

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

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Published Weekly at Eighth and Jackson Streets, Topeka, Kansas

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CHARLES DILLON, Managing Editor. F. B. NICHOLS, Associate Editor.

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Passing Comment--By T. A. McNeal

Opposes the Credit Bill

My old friend Tom Hubbard is opposed to the new farm loan law. Under date of July 5 he writes: "I am just in receipt of the latest printed form of the Federal Loan Bill. This bill proposes a most elaborate and costly system of land loan banks and farm loan associations with restrictions preventing their lending money to farmers for less than 6 per cent, the borrowers to pay incidental expenses. I should think that such an elaborate and costly system with two sets of banks to support would prove abortive at this rate of interest."

I have gone over this measure several times and if I understand its provisions Mr. Hubbard is mistaken about the interest rate. Possibly it is worth while to state briefly what this bill does provide:

1. The bill provides for a farm loan board of five persons one of whom is the Secretary of the Treasury, the other four to be appointed by the President with the provision that not more than two of them shall belong to one political party. These four members will receive salaries of \$10,000 a year.

2. This farm loan board shall divide the territory of the United States into 12 districts, which shall be known as federal land bank districts. In each of these districts there shall be a federal land bank. Each federal land bank shall have nine directors and must have a subscribed capital of not less than ¼ million dollars. The capital stock shall be divided into shares of \$5 each and may be subscribed for and held by any individual, firm or corporation or by the government of any state or the United States. This stock shall not be transferred or hypothecated.

3. These federal land banks shall, when designated for that purpose by the Secretary of the Treasury, be depositaries of public money except receipts from customs.

4. Corporations to be known as national farm loan associations may be organized by persons desiring to borrow money on farm mortgage security under the terms of the act. An organization of this kind must contain not fewer than 10 persons and have a board of not fewer than five directors, who shall elect a president, vice president, secretary-treasurer and loan committee. The salary of the secretary-treasurer will be determined by the board of directors. The officers, except the secretary-treasurer, shall serve without pay unless the payment of salaries to them shall be approved by the federal farm loan board. All members of these national farm loan associations must be land owners. The national farm loan associations must each subscribe for stock in the federal land bank to the extent of at least 5 per cent of the aggregate amount of loans desired by the members of the national farm loan association.

5. The largest loan that can be made to any member of one of these national farm loan associations is \$10,000 and the smallest loan that can be made is \$100.

6. In addition to the stock in the federal land bank held by the national farm loan associations, they are authorized to issue stock in \$5 shares. Any land owner desiring to get a loan thru these associations must subscribe for stock in the association to the extent of one share of stock for each \$100 of his loan.

7. Loans shall be made on appraisement and not more than 50 per cent of the appraised value of the land plus 20 per cent of value of the permanent insured improvements shall be made to any one person.

8. In order to secure lendable funds the federal land banks are authorized to issue bonds in denominations of \$25, \$50, \$100, \$500 and \$1,000, bearing not to exceed 5 per cent interest and free from taxes state, local or national.

9. The rate charged the borrower shall not exceed the rate of interest on the farm loan bonds with a charge to cover expenses and profits, not to exceed 1 per cent on the unpaid principal. These two rates will constitute the rate of interest on the loan. In addition to these two rates will be added such an amount as will extinguish the debt within an agreed period of not less than five nor more than 40 years.

Right here is where Mr. Hubbard is mistaken. There is nothing in the bill which will prevent these federal loan banks from lending money at less than 6 per cent; on the contrary a nontaxable 4 per cent bond approved by the government ought easily to sell at par. This would make the rate to borrower

not more than 5 per cent, to which would be added the amount paid into the amortization fund. If the loan runs for 20 years 1 per cent would be sufficient to extinguish the principal, so that the total rate paid by the borrower in that case, including the payment necessary to pay the principal would not exceed 6 per cent a year.

10. Instead of the rates being not less than 6 per cent to the borrower the bill provides that no loan shall be made, at a rate in excess of 6 per cent exclusive of amortization payments.

11. In addition to the national farm loan associations, the bill provides for joint stock land banks. Each of these joint stock land banks must have a subscribed capital of not less than ¼ million dollars. The charter for a joint stock land bank will be issued by the federal farm loan board.

There is this distinction between the federal land banks and the joint stock land banks in addition to the fact that the subscribed stock in the federal land bank must aggregate at least ¼ million dollars, while the total subscribed stock in the joint stock bank may not exceed ¼ million dollars, and that is, that the government will hold stock in the federal land banks and will not hold stock in the joint stock land banks.

12. The joint stock land bank cannot obligate itself for outstanding loan bonds in excess of 15 times the amount of its capital and surplus. Another distinction is that the joint stock land bank is not restricted as to the size of loan it may make to any one individual. It is limited however to 15 per cent of the appraised value of the land plus 20 per cent of the insured permanent improvements. The bill provides heavy penalties for false appraisals and misrepresentations on the part of the borrower.

Now I have said a number of times, and I repeat that there is too much machinery connected with this bill. I have also said that it is not what I should have if I had the power. I think the power of lending credit ought to be in the hands of the government and the benefits ought to be extended to all classes alike. This measure is plainly class legislation, to which there is a valid objection. But after acknowledging the objections to the measure, I am still of the opinion that it will be a great benefit to the farmers who wish to borrow, and that indirectly other classes will be benefited because the farmers are benefited. Cheaper money for the farmers is certain to reduce interest rates generally and therefore benefit borrowers of all classes. For this reason I am glad to see the bill pass.

The Dance of Death

The war in Europe apparently has reached the third and it is to be hoped the final stage. The first stage was the rapid and powerful drive of Germany thru Belgium into France, until the roar of the big guns was heard distinctly in Paris. At the same time on the eastern front the Russian army under the Grand Duke Nicholas pushed down into Galicia and eastern Prussia and as some of the allies supposed, was threatening Berlin.

The German drive into France was checked and hurled back for a considerable distance. The danger of the capture of Paris was at least temporarily removed and the French government again returned to the capital of France.

On the other hand the Russian advance not only was checked but hurled back in what to the outside world seemed utter rout. For hundreds of miles the German army pursued the armies of the czar. Finally, however, the retreat was checked. The Grand Duke had managed, while losing a vast number of men, to save the bulk of his army and at last to turn on his foe and hold it. On the western front came the deadlock and the long wearisome, and yet destructive, trench warfare.

Then came what may be called the second stage of the war, a long deadlock for the most part, but with the advantage on the side of the central powers. This was varied by the drive into and thru Serbia and Montenegro and almost to the shores of the Mediterranean and Aegean seas. This marked perhaps the darkest period of the great war for the allies. There seemed to be a lack of concerted purpose and while they were debating among themselves what they ought to do and how, the well organized German and Austrian armies were scoring gains, some great and some small, on all the fronts.

A unified plan seems to have been reached. The

allies, horribly punished, but without any intention of yielding, began the tremendous task of preparation for a general offensive.

A month ago the allied commanders concluded the time was ripe and the offensive was begun. This is what may be called the third phase of the war. It is too early yet to say how it will terminate. One thing is certain: the loss of life is terrific, perhaps even greater than at any previous time. It may be said that there is less of boastful claims made by either side than at any previous time. When the war began the Germans believed they could win it speedily by a terrific drive with their huge and wonderfully equipped armies. They discovered that they were mistaken. When the Russian armies were driven back into the interior of the czar's dominions the German people believed that Russia had been put out of the fighting, if not permanently at least for a long time. Again they were mistaken.

When the German rush into France was checked and the French were victors at the battle of the Marne, they jumped to the conclusion that the turning point had come and that from then on the central powers would decline steadily. They also were mistaken. When the war began Great Britain evidently supposed that it would not be necessary to send to the continent much if any more than her small regular army; that her mighty fleet sweeping the seas, together with the help of the French and Russian armies on the land would be sufficient to win the war. That too was a blunder. Since then Great Britain has mustered, trained and equipped by far the mightiest army of all her history, an army of approximately 4 million men; and this great army or the best of it is now fighting desperately and suffering horribly in an effort to help drive the German armies out of France and Belgium. All of them now know that the task ahead is bloody and uncertain. They understand that it means the loss of a vast number of lives.

Both sides, however, predict success in the end. How much of sincerity there may be in these claims I do not know. It should not be expected that either side will admit eventual defeat, for if they did they might better quit now.

The sad fact is that there is no prospect of an early stopping of the slaughter. The dance of death probably will go on for months, it may be for another year. Hundreds of thousands of the best and bravest of all the countries involved in the struggle must die. Other hundreds of thousands, just as brave, will be maimed for life and when it is all over the fact will remain that the whole bloody business was unnecessary. Less than 100 men scattered about Europe could have prevented the war. Even the victors will be tremendous losers and the curse of the conflict will rest not only on the present generation but on generation after generation still unborn. War is the most supreme of follies and the most awful of crimes.

Ruinous Usury

The last report of the comptroller of the currency is rather an interesting document for persons who are interested in financial questions, and interest rates especially.

The national banking law forbids national banks to charge a greater rate of interest than is permitted by the laws of the state in which the bank is located. The penalty is a forfeiture of double the amount of interest collected. Also suits may be brought for the forfeiture of the charters of the banks charging usurious interest. However, the suit must be instituted by some borrower who has been charged the illegal rate. This fact makes the danger of prosecution decidedly small. In the first place the borrower is apt to shrink from bringing suit to punish the other party to a contract which the first party entered into, presumably with his eyes open. In the second place the borrower fears that if he squeals about the rate of interest charged he can neither get any future loans from that particular bank or any other bank, for in this matter the banks will stand together.

The bank therefore is pretty safe in charging usurious interest. Solomon remarked that the borrower is the servant of the lender, and conditions in that respect have not changed materially since the days of that Hebrew king.

For some reason the average man who borrows money from a bank, no matter what the rate of interest or the amount of security required, feels that he

is under obligation to the bank for lending him the money and therefore is not much disposed to kick about it afterward.

The comptroller's report gives a long list of notes reported by banks on which usurious rates of interest were charged. The rates run all the way from 10 per cent to 480 per cent.

One national bank in Oklahoma reports that the average rate of interest charged by it was 25 per cent and the lowest rate charged in any case was 10 per cent. Another Oklahoma bank reported that between September 2, 1915 and November 10, 1915 the average rate of interest on loans was 36 per cent and the highest rate charged on any loan was 147 per cent.

Another bank in the same state reported that the average rate charged on loans between these dates, was 40 per cent and the highest rate on any loan was 300 per cent. The highway robber who happens to read that report must feel a keen envy of the methods of that bank as compared with his own. He runs considerable risk in his operations and generally is regarded as an undesirable citizen, while no doubt the bankers who run that institution are considered the foremost citizens of the town and probably pillars in the church.

The Remedy

So long as the lending of money is a private business, just so long will the abuses mentioned in the report of the comptroller of the currency continue to exist. I believe that the issuing of money or exchangeable forms of credit is a public function and ought to be operated thru government agencies and at actual cost. In other words, interest, as we now understand the term, should be abolished.

The poor man certainly should receive such credit as he is entitled to receive at no greater cost to him than to the most wealthy individual or corporation in the land.

The comptroller's report simply shows what every reasonably well informed man always has known: Those least able to bear the burden of interest always pay a much higher rate than those best able to pay. As a result the tendency is to continuously widen the breach between the rich and the poor. The greatest evil of the present European war, aside from the killing and maiming of men, the destruction of homes and the want forced upon women and children, is the burden of interest-bearing debt that will be left after the war is ended. The result under the present system will be to concentrate what may be called the liquid credit of the world, which is necessary to conduct the business of the world. In other words unless the financial system of the world is changed after the war is ended the capitalists, the credit lender, will have a much stronger grip on the business of the world than ever before.

In order to prevent this there should be not only an international confederation formed to preserve the peace of the world, but along with it there should be an international exchange of credit established. Behind this international credit all the confederated nations should place their resources, and this credit should be issued in the form of bills of exchange receivable at par value in all of the nations and issued and redeemed by all without charge except actual cost. The amount of bills of credit of any nation should be in proportion to the estimated wealth of that nation. If any nation in the confederation should issue more than its proper proportion of bills of credit it should be penalized by the other nations by refusing to give credit to the bills of that nation. These bills of credit should be issued at cost and distributed thru government postal banks upon the depositing of reasonable security for the repayment of the loan. In this way the burden of interest would be lifted, the concentration of credit would be prevented and the people of the war stricken nations would be permitted to rebuild their waste places and recoup their fortunes.

Peace With Mexico

When the Passing Comment was written for the last issue of the Farmers Mail and Breeze war with Mexico seemed inevitable. I am happy to say that as this is written, while the danger of war has not passed entirely, the prospect is bright for a peaceful settlement. For this I am profoundly glad.

In my judgment this country could not have invaded and conquered Mexico and afterward have justified its conduct in the eyes of the weaker nations of the world or more especially of America. We might have said that we were forced to intervene in the interest of humanity but that reason would never in my opinion go down with the Central and South American republics. Seventy years ago we had a war with Mexico and the same reasons were given by President James K. Polk that now are proposed by some for invading and conquering Mexico. He prated a good deal about humanity but the world knew that the war with Mexico was planned by the slave power, the great property interest and political combine of that day.

Here is what General Grant, who fought with distinguished gallantry in the war with Mexico and afterward rose to the position of the greatest soldier of his time, had to say about that war: "The occupation, separation and annexation were, from the inception of the movement to its final consummation, a conspiracy to acquire territory out of which slave states might be formed for the American Union. Even if the annexation itself could be justified, the

manner in which the subsequent war was forced upon Mexico cannot. The Southern rebellion was largely the outgrowth of the Mexican war. Nations, like individuals, are punished for their transgressions. We got our punishment in the most sanguinary and expensive war of modern times."

In the present case there is a widespread belief that if we invade and conquer Mexico we will do it at the behest of those who wish to have the opportunity to exploit that rich land for their personal gain. That is the reason why a war with Mexico is not popular. The few would probably reap the benefits while the suffering and loss of life would be among those who would reap no benefit from the victory. I have not always approved of President Wilson's course with regard to Mexico but I do approve of his present endeavor to settle the differences between this country and Mexico without further bloodshed.

What the Employees Say

Some weeks ago I published a statement from Mr. Copeland, treasurer of the great Santa Fe system, giving the railroad side of the controversy between it and the trainmen who have voted to strike unless their demands are complied with. I have here a statement of the employees' side of the controversy which seems to me to be fair and reasonable:

In the publicity that has been given this subject it is an easy matter for one not familiar with the working conditions of railroad employees to think that they are making an unjust demand of the railroads when they ask for less working hours. The general impression is that the trainmen demand a working day of 8 hours with increased pay, and time and one-half for all time in excess of 8 hours. Technically this is true, yet if the demands of the men are met these conditions will not exist as the public is inclined to believe. This demand is not made for an increase in pay, but is a plan adopted to force the railroads to give their men better working hours. And in asking for a shorter working day the trainmen's organization expect to bring these conditions about without any great additional expense to the railroads and not any from the public.

In the operation of railroads, at the present time, division points are maintained about 100 miles apart, and a day's work for a train crew is covering the division to which they are assigned. If they make the division in 10 hours they are paid by the mile, but if they exceed the 10 hours they are paid for the hours on duty. To cover a division of 100 miles in 10 hours they must move their trains at a speed of 10 miles an hour. This is impossible under the present conditions as the railroad companies insist that each train be loaded with cars to the limit of the pulling capacity of their motive power. When this is done the speed of the trains is below the 10 mile an hour schedule, frequently as low as 4 and 5 miles an hour which compels trainmen to work 12, 14 and even 16 hours a day. These excessive hours coupled with the frequency that they are worked places the occupation of trainmen clear out of proportion with all other occupations of the working world.

Now in their request for a shorter working day the trainmen ask the railroads to put them over their divisions in 8 hours or move their trains at a speed of 12½ miles an hour. To do this the railroads will have to reduce their trains and take the same money that they are now paying men to work 12, 14 and 16 hours a day and employ extra men to move the accumulation of traffic caused by the reduction of trains. No increase in pay is desired. It is just a plan to employ more men, who will in fewer hours move more trains at a higher rate of speed on almost the same expense to railroads that the present excessive hour system costs.

It is understood that the railroad employees do not want overtime. And in their demand for an 8 hour day they want to work the 8 hours and quit. To keep the railroad companies in the future from working them excessive hours, in their demand they ask for time and one-half for all time above 8 hours. This plan makes it cheaper for railroads to employ more men and work them all 8 hours than to pay the regular crews they now have time and one-half above the 8 hours.

These plans as outlined by the railroad employees if adopted by the railroad companies would add to the efficiency of their service. The men will not be worn out by long hours and when on duty can give better service to their employers. The public will profit by these changes as their commodities will move in transit with a guarantee of 12½ miles an hour.

The 8 hour day for railroad employees is not impracticable nor is it a dream. There are a number of the smaller railroad companies of the United States that now are working their men on the 8 hour proposition and with one or two exceptions they are solvent and doing a prosperous business.

Truthful James

"I hev known in my time some all-fired smart people," remarked Truthful as he commenced to whistle on a pine stick, "who never really amounted to a whoop because they was always experimentin' on things that didn't amount to much of anything. There was Ezra Summers for example. Now Ezra was a born genius. Even when he was a boy he was always inventin' one fool thing or other that showed genius but never got anywhere because they wan't no practical use."

"One of the first idears that Ezra got into his head was that he could make the horses and cows relish their food if he could persuade 'em that they were getting green stuff all the while. So he rigged up two pair of big green spectacles and fastened 'em onto the family horse and old Boss, the cow. The result did in a way prove that Ezra's theory was correct. His father wore a large bunch of red whiskers, about enough of them to fill a pillow. The evening after Ezra fixed up the family horse with the spectacles his father went out to the barn to give Dobbin a feed of corn. He was thinkin' about something else and didn't notice the spectacles till he got right up to the manger. Dobbin looked thru them spectacles and concluded that the old man's whiskers was a forkful of green grass. He just reached over and bit out about an armful of

the old man's lilacs incidentally takin' about four square inches of skin with it. It made Ezra's father real warm and when he got his face patched up he called little Ezra into the woodshed sayin' as he whirled the blacksnake around that he liked to see boys enterprisin' but not too blamed much so.

"That discouraged Ezra some but he got over it after awhile and began experimentin' on another line. His father was always grumblin' because the hired man didn't get up early enough in the mornin' and that put an idee into Ezra's head. He commenced workin' on an automatic awakener which he could set like an alarm clock, to go off at a certain hour. When that time come the machine would reach out an arm and joggle the bed and wake up the sleeper. Some how or other Ezra made a miscalculation on the power and got it about four or five times as strong as he intended. He finally got it about to his likin' but wanted to make a few alterations on it and concluded to hide it under the bed old man Summers slept on. It seems that Ezra had been foolin' with the clock work that released the machinery and didn't notice that he had set it to go off at 2 o'clock in the morning. The elder Summers was a tolerably heavy sleeper and snored so that he made the shingles rattle on the roof. He hadn't looked under the bed when he retired and didn't know that Ezra's invention was there. He was goin' good with the exception that his breathin' tracts would dam up once in a while and then let loose with a loud explosion, when all at once that machine went off and released three powerful coiled springs. They lifted the bed near six feet from the floor and threw the old man Summers up against the ceiling. He yelled like a wild Comanche, thinkin', I suppose, that burglars had attacked him while he was asleep. When he found out what was the matter he kicked the machine to pieces and then he warmed Ezra up for a spell.

"The next thing Ezra tried his hand on was an electrical machine. He got the idea from seein' one of these electric batteries work in a doctor's office where the patient takes hold of a couple of handles and the doctor turns on a gentle current of electricity under the impression that this is very helpful to the human system. Well, Ezra got some batteries and wire and acid and went to work, and he got the thing to work too. Then he took it in to show it to his father and the family. There was an old maid aunt who made her home with the family a good deal of the time. Ezra's father didn't like her, but he didn't have the nerve to tell her to go away and not come back and so she staid. Well, Ezra persuaded his aunt to take hold of the two handles just by way of experiment and then he turned on the juice. He gave the old maid a terrible shock. She yelled but she couldn't let go. Ezra tried to turn off the current but only got it stronger. The old maid did the Highland fling and Ezra's father went out of the room to keep her from seein' him laugh. It was more than a minute before Ezra found the right combination to throw off the current and when he did his aunt was nearly in a state of nervous prostration. She insisted that Ezra had done it on purpose and that his father should lick him good and plenty, but this time the old man felt different from what he did when the horse bit out an armful of his whiskers and refused to punish the boy. That made the old maid aunt mad and she packed her duds declaring that she would never darken that house again. After she had gone Ezra's father gave him a half dollar, but told him that he guessed he had better hide that machine. That was the way it was all the time. Ezra's inventions were continually gittin' him into trouble and bringin' him nothin' in return."

The Man and the Square Deal

A Fragment from Governor Capper's speech on the Enforcement of Law.

In America—in Kansas—more than anywhere else on earth, we are born free and equal.

But the greatest guarantee of our equality, of our personal opportunity, and of our personal and community rights, is the law.

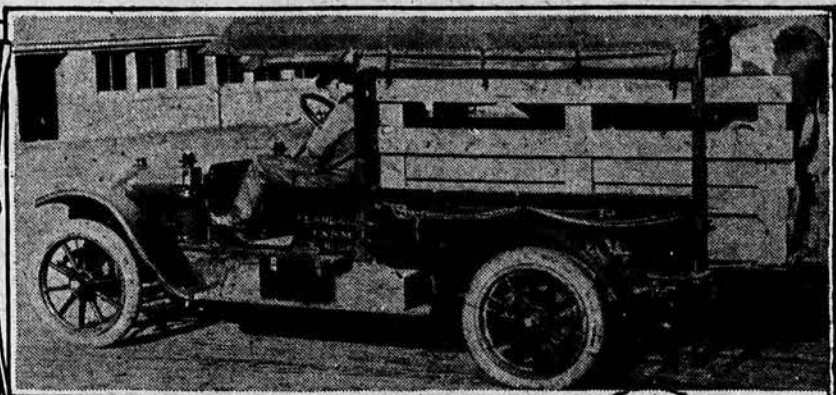
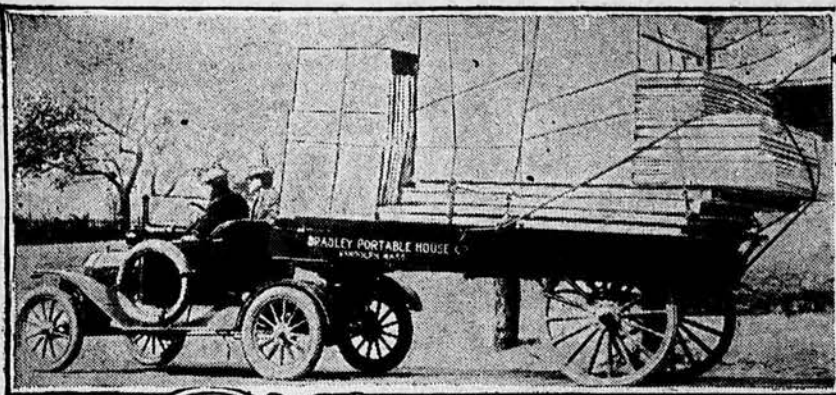
Whenever the administration of the law or the enforcement of the law is lax, or corrupt, the man who suffers most because of this laxness or this corruption is always the poorer man.

He is the man whose rights we must guard jealously, the other man can take pretty good care of himself.

If we can be reasonably sure that the most defenseless man is getting a square deal and a fair show, we can be very certain that all is well with the rest of the world.

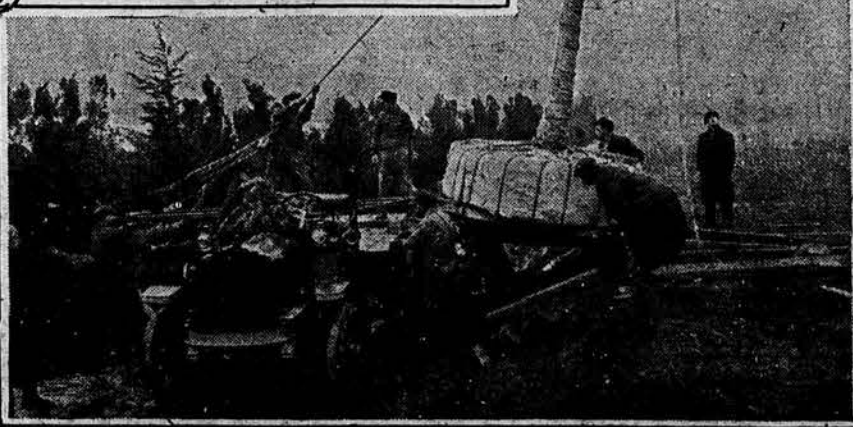
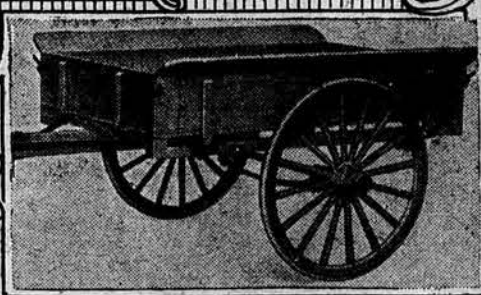
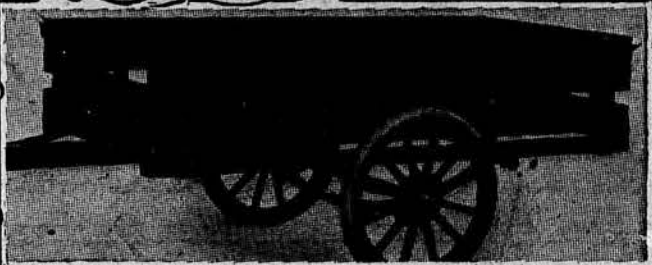
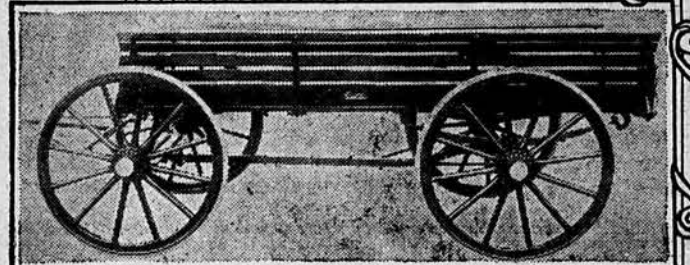
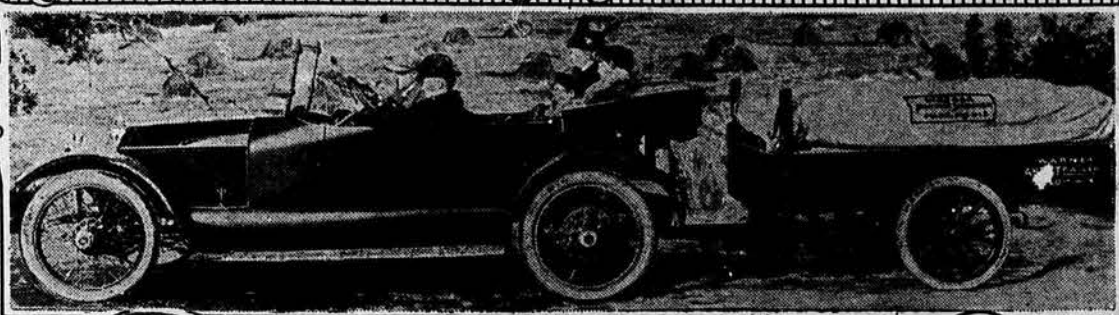
We need courts and judges and a system of jurisprudence that will act with the same promptness as the postoffice. And they should serve the public as inexpensively as possible, for we should make justice so free that the poor man will never be debarred from its protection, and the law's delays be used to break his back and perpetuate an injustice.

To face our greatest enemy and save ourselves from destruction, our need is not soldiers and battleships, but more efficient and honest judges and other public officials and a citizenship that is constantly on the job.



TRUCKS

TRAILERS



For a Big Wheat Crop

Deep, Early Plowing is Needed in Increasing the Yields of Grain for Next Year

By F. B. NICHOLS, Associate Editor

WHEAT seedbeds in Kansas need a great deal more attention. The average yields are far too low; on many farms in the last two years they have been below the cost of production. The average wheat yield for the state last year was 12.5 bushels, and this year J. C. Mohler, secretary of agriculture, estimates that the yield will be 11.6 bushels. Of course it is true that the wet weather bothered with the preparation of the wheat land a great deal last year; but this would not have occurred to so great an extent if an effort had not been made on many farms to put in too large an acreage. There is a need for a considerable reduction in the wheat acreage in Kansas, and this will give an opportunity to pay more attention to the ground that is prepared.

It is probable that the wheat seedbeds used in Kansas in the fall of 1915 were the worst ever known, taking the state as a whole. They have shown up this year, too, in a very obvious way, and have done a great deal to hold down the average yield. Much of the damage they have done has been charged up to other causes. Perhaps the most obvious result is the "dry weather spots" in the fields in Southwestern Kansas, and in other sections. There are many fields in some of the western counties, such as Ford for example, that have places where the wheat was so badly injured by the dry weather of last spring that it will yield practically nothing. There is but little of this injury where the fields were prepared properly.

With the equipment found on most of the farms in the main wheat belt it is not physically possible to get the wheat land prepared in the best condition. There is too much work for the amount of equipment available. When this is the case, and it is very generally true, the only thing to do is to reduce the wheat acreage. A diversified system of farming with some attention to livestock, is needed all thru the wheat belt. If this is adopted it will make it possible to reduce the wheat acreage greatly, and to give more attention to what remains. This will aid greatly in increasing the wheat yields. High yields are possible when this is done; there are records of as high as 65 bushels of wheat an acre in Kansas, and yields of 50 bushels an acre are quite common. Many individual farms will average from 25 to 35 bushels an acre year after year. It would seem, therefore, in view of these yields that the average wheat yield of 14 bushels in this state could be increased greatly if a proper effort were made. The soil in Kansas has an adaptation for this crop that is not exceeded by the adaptation of the land in any other section but there are many states that have a higher average yield than is found here.

This matter of wheat seedbed preparation in Kansas is quite largely one of putting more work on the ground. As an average for the state it is probable that about twice as much energy is needed on every acre. If this additional work were given we would not have so many "poor" wheat years—for the conditions would be such that good yields could be produced even if the season were not the most favorable.

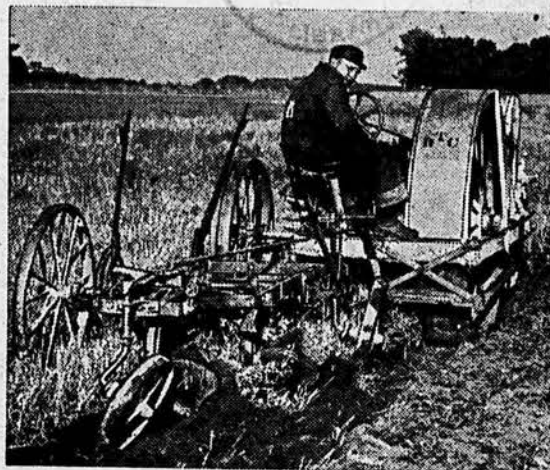
The best methods of seedbed preparation for wheat are well understood among farmers generally; for they are a matter of common observation. Any farmer who has grown wheat for several years and used a little common sense in getting at the rule of the average knows what will give the best results year after year. There are years like 1914 of course when almost any kind of a seedbed will give a good yield and there are other unfavorable seasons which will not allow the best yield on any field, no matter how well it is prepared.

As an average for the state, year after year, deep,

early preparation of the seedbed is the vital thing in getting a good yield of wheat. Fairly good yields have been produced even this year on the fields that were plowed deeply early in July. This early preparation allows a prompt start of the bacterial and chemical plant food forming agencies, so the maximum amount of plant food will be available later when the crop is planted. In addition this early preparation will help in conserving the moisture. It also will allow time for the soil to settle, so the capillary attraction will be well restored by seeding time. The ideal condition is to have the wheat fields firm at seeding, with the capillary attraction well restored and containing an abundance of plant food and moisture.

Any system that will bring this about is desirable. Over much of Kansas the best plan is to plow the soil deeply, from 6 to 8 inches, just as soon as possible after harvest. When the soil cannot be plowed at once it should be disked. It is true that this is deeper plowing than is done on most farms—there is a great deal of 3 and 4 inch plowing—and it is not possible to do deep plowing rapidly if horses supply the power. Most of the progress made by tractor farming in Kansas has come because of the appreciation of the need for deep plowing. When the wheat land is rotated properly—when it is a part of the diversified system of farming—there is not so much need for great attention to deep plowing for the wheat. Most of the deep plowing can be done in the fall or winter for other crops. Experiments have shown, for example, that when the rotation is just a simple change from corn to wheat and the deep plowing is done in the winter for the corn it is not nearly so important to plow deeply for the wheat.

With the organization found on the average Kansas wheat farm it is not possible to get over any con-



Deep Plowing is Easy With a Tractor.

"preparing a good seedbed cannot be over-emphasized. It has more to do—in fact, much more to do—with increasing yields than the variety grown, and must be kept constantly in mind by the young man who is trying to become a farm owner. Our soils are still rich in fertility, but the fertility is less readily available to the plant than it once was. The soil needs to be plowed a little earlier in the season to bring about the same favorable condition for planting that once could be obtained by the mere scratching of the soil.

"We need to give our land a rest from wheat once in a while—plant it to some other crop, like corn, alfalfa, or the sorghums. We need to carry some that now goes to waste on so many farms—roughage like corn stover, sorghum stover, and wheat straw. By diversifying crops and maintaining a few head of livestock on every wheat farm a farmer will provide profitable employment every working day. Under the present prevailing system of growing wheat a man is out of a job about six months in every year. Not another business under the sun would provide a man with even a decent living if conducted in this manner.

"Connected with almost every farming operation are little details that have been overlooked and are still being overlooked by our farm owners today and the men who have been on the land since Kansas first became a state. While to such men these details seem not to amount to much, they must be kept in mind by every wheat grower or farmer of the future, unless he should have the good fortune—rather the misfortune—to become the possessor of his farm thru inheritance."

There is a big need for real attention to the problem of seed selection. A considerable increase can be obtained in these days of high wheat prices by the use of improved seed, and this runs into money quite rapidly. The Kansas Experiment station has been in the lead in improving the wheat varieties; here is what L. E. Call, professor of agronomy, has to say about this work:

"We have developed at the Kansas Experiment station during the last seven years several strains of wheat that appear very much better than the ordinary varieties of wheat now grown generally in the state. One of these varieties, yet unnamed, bears the Kansas Experiment station Number P-762 and is a selection from the Crimean variety, a Turkey type of wheat. It has been tested in comparison with Kharkof and Turkey wheat in variety test plats at this station since 1911. The average yield of this selection for the five-year period 1911-1915 inclusive has been 30.1 bushels, compared with 27.4 bushels for Turkey during the same period, an increase of 9 per cent. In the extremely unfavorable season of 1912 it produced 57 per cent more grain than Turkey.

"During the season of 1914 this improved variety was planted in 12 variety tests conducted in co-operation with farmers in the wheat belt of Central Kansas. This variety was compared with the local variety that the farmer who conducted the test used for his general seeding. In most cases the local variety was Kharkof or Turkey that had been secured from this station and was, therefore, better than much of the wheat planted in the state. In 1914 the local wheat made an average yield on these farms of 25.5 bushels and the improved strain a yield of 28.7 bushels an acre, an increase of more than 3 bushels an acre. In 1915 as an average of 20 tests in the same section of the state, the local wheat produced 20.9 bushels and the improved strain a yield of 24.7 bushels, an increase of 3.8 bushels an acre, or 18 per cent. This improved variety appears to be more

(Continued on Page 37.)

TRAILERS

A rapid extension is taking place in the use of power in hauling farm products. This has been made possible by the increase in the efficiency of motor cars and motor trucks. When there is a great deal of heavy work to be done it is necessary that a motor truck should be used, but for lighter work the smaller, inexpensive trailers that are hitched behind motor cars are giving good results. Some of the farm uses of both kinds of transportation are shown on the opposite page. There is certain to be a great development with both systems in Kansas in the next five years.

siderable acreage with the plow soon after harvest, and when this is the case it is necessary that the soil should be disked if the best results are to be obtained. There is a big need for a better appreciation of the importance of disking in this state. Disking breaks the surface of the soil, aids in conserving the moisture, almost prevents the forming of clods, starts the forming of available plant food and aids in the germination of the volunteer wheat. If the volunteer wheat can be started early and later killed it will not be the home of the early brood of Hessian fly. This disking also has a vital part in killing the fly. There is a big need for the prompt disking of the wheat fields in all sections of Kansas that were troubled this year with the fly—and that includes most of the state.

Listing has encountered much favor in many parts of the wheat belt. The big advantage of this system is that one can get over the land rapidly. When the disking is used plowing is better adapted to the large farms, especially if a tractor is available so a large acreage can be gone over. When listing is done the best results by far can be obtained if double listing is the rule.

Considerable work is needed on wheat land after it is plowed. The rule should be to keep the surface broken and the weeds killed. Of course when the rains come so rapidly as they did last summer it will not always be possible to get the soil broken after every rain, but it usually can be done. Real care of this kind will pay; in speaking of this W. M. Jardine, dean of agriculture in the Kansas State Agricultural college, said:

"Farmers are beginning to realize that if they profit as they should thru planting a high-yielding strain of wheat, it is necessary for them to provide a favorable place for it to grow; and this brings in the factor of soil preparation. The importance of



Preparing for Wheat by Listing.

Plowing in the Wet Soil

Tractors Did Good Work Last Fall on Weedy Gumbo Fields

BY A. A. JEFFREY

I MAY as well admit that at times I have lost patience with the farm papers for boosting the tractor. It seemed little short of treachery to advise farmers to patronize the steel trust to the detriment of their own trade in draft colts. That was while I still looked upon the tractor as a competitor of the horse.

Such changes of opinion as I am about to confess are due to the everyday experiences of several of my tractor owning neighbors. You know there is nothing more likely to revise pre-conceived notions than first-hand information.

An instance in point is the experience of F. W. Walter at Corning, Mo. Mr. Corning was right in the worst of the floods last year. Scarcely an acre of the many thousands of acres of wheat in that section was harvested last summer, and the threshing machines were not out of their sheds at all in 1915. Fields of wheat ripened and fell to the ground in a tangle of weeds, were swept bare or simply submerged by the water that kept coming.

Late September found the fields still too wet to plow. By the middle of October there appeared to be some chance and a few men tried, but their horses mired down or their plows clogged with the tangle of aftergrowth and it was impossible to turn a decent furrow. Mr. Walter's fields were in no way different from the rest. Above the soggy gumbo was a tangle of fallen wheat, wet-weather grass and smartweed supplying a favorable bed from which had sprung sunflowers and horseweeds as thickly as such weeds can grow and to a height ordinarily incredible.

And here it was the middle of October; no crop for that year and no preparation for the next. Mr. Walter owns a 15-30 horse-power tractor equipped with a 5-bottom plow rig. He also has a big threshing outfit which he had operated with the tractor two previous seasons but which had not left the shed last year. A whole year's depreciation on the tractor would have to be charged against the plowing operations, and the costs of operating in such unfavorable circumstances would in this case certainly reach a maximum. Here was a chance for a skeptic like myself to prove his contention against the tractor.

And this is the way it worked out. Mr. Walter himself is about 80 years old. His son, Len, who operates a store in Corning has a son, Francis G. Walter, and to this young man with an assistant to handle the plows was given the responsibility of showing what could be done toward fall-plowing that jungle of wet weather growth. Their first work was to start a team and mower around the big field. Three rounds were sufficient to tire out the horses, fill the guards and gears of the mower with mud and wet straw and thoroly demonstrate that the field was too wet to work in any form with horses. The original plan was to mow and rake the trash so that it could be burned off the ground, but it was found to be too wet for either operation.

"We'll just try the plows on it—just as it stands," said young Mr. Walter.



Power Farming Pays: This is the Tractor That Turned Under a 10-Foot Growth of Weeds Last Fall.

And counting the time required to get the outfit going, it took the two of them just 13 days to plow 125 acres. I saw these fields after they were plowed and of all that 10-foot tangle of fallow growth there remained not so much as a leaf above the smoothly turned surface. The job was finished early in November and there is now 125 acres of the Walter farm in prime condition to produce a record corn crop in 1916. That mulch of straw and weeds, turned under so completely beneath the wet gumbo, will make a favorable difference in the condition of these fields for years to come. The action of the frost put the top soil in fine tilth. And with any number of horses this thing would have been impossible.

Sometimes actual facts sound stranger than fiction. Possibly this is an instance of that sort. If someone had told me a year ago that it was possible with a tractor to turn under a thickly set, 10-foot growth of weeds on wet gumbo, I would have doubted it; but now I know it to be a fact. The cab of the Walter tractor stands 123 inches high. That is 3 inches more than 10 feet and much of the growth thru which this tractor plowed was as high as that cab. And the way those plows turned under all this growth is much more simple than it sounds. Connecting the five 14-inch plows and extending 6 or 8 feet before them is a heavy steel frame a foot above the ground. So it isn't so strange after all, with the weeds held flat before them and plenty of power to pull them thru the ground, 7 inches deep, that these big plows were capable of doing such good work.

And as for the cost. Father used to run a breaking plow in the early days up in Adair, Cass and Adams counties, in Iowa. He used oxen for power. The sod was tough and the price for breaking prairie with such an outfit was \$3 an acre. Coming down to the present, I know of some custom plowing done last fall on the lowlands near Napier for exactly the same price. Evidently then, if Mr. Walter were able to plow his 125 acres at a cost within \$3 an acre he

would be doing well. He couldn't have hired anybody to do it for that last fall—with tractor, horses or oxen—and that's a fact. And here is what it actually did cost him with his own tractor:

In the first place he must charge against that plowing job, a whole year's depreciation on an \$1,850 outfit. It was the third year's depreciation and should figure \$150. There is no trouble in

getting men to operate tractor or plows at \$2 a day. The 13 days, then, at \$4 a day would be \$52. Sharpening shares, every other day, five shares, six times at 25 cents each, \$7.50. Kerosene used, 315 gallons at 10 cents, \$31.50. Cylinder oil, 33 gallons at 50 cents, \$16.50. Total, \$257.50. Under the most favorable circumstances, working but 13 days out of 365, this particular iron horse did work that no number of flesh and blood horses could possibly have done and did it at two-thirds the cost of doing it with horses—or oxen.

Then there is the experience of George W. Glick, another Holt county farmer. In partnership with A. O. Swope, he owns a pair of tractors; one a 12-25 and the other a great, big 30-60. These men have a 5-plow outfit and a 12-foot double disk. They have owned these machines three seasons, having plowed 300 acres in the fall of 1913, 500 in 1914 and about 200 in 1915. The big tractor, when the ground is in good condition, will pull the five plows and the double disk at one operation; but last year the big tractor was used with the plows only and the 12-25 followed with the disk. Some custom work was done at a charge of \$3 an acre for plowing or \$4 for plowing and disk.

And the experience of these men brings out another point. Glick and Swope had a quarter section that just had to be fall plowed despite the briefness of the season. The time was so short that to get it done seemed almost impossible. But the big 30-60 iron horse turned under 10 acres in a 10-hour day and was as fresh as at the start. With 10 gallons of kerosene an hour it could go as long as anyone cared to go with it. Consequently the owners rigged up a "Prestolite" tank and an automobile lamp, hired a night crew and the big horse traveled right along at the same rate for 20 hours out of every 24. The work was done well, it was done cheaply, and it was finished a great deal sooner than would have been possible with horses.

When to Cut Hay

BY E. G. SCHAFER

"Make hay while the sun shines," is the old rule and is always a good one to follow. Another rule which should receive consideration is that the hay crop be cut when the greatest total amount of digestible nutrients can be obtained. This condition will be attained somewhat earlier in the biennial and perennial legumes than in the grasses.

Alfalfa makes the best quality of hay if it is cut just as it is coming into bloom, say when it is one-fourth in blossom. It will be more digestible if cut

at this period and there will be less loss in leaves than if cut later. If cut earlier there will be a reduction in yield. Red clover should be cut at a little later stage of maturity or just when the first heads are turning brown.

Sweet clover should be cut just before the blossoms appear. When cut at this stage it will retain less of the bitter taste and will be less coarse and woody than if cut later.

Timothy, orchard grass and other grasses should be cut after they are in bloom and when the seed is being formed. There is less loss in the grasses by the falling off of leaves as the plant advances in maturity than in the clovers. If timothy is cut too early it is more difficult to cure.

Hay should not be cured so rapidly that the leaves will become dry and shatter while the stems still contain a great deal of moisture, but the moisture from both the leaves and stems should be evaporated largely thru the leaves. When hay becomes partly cured in the swath and windrow it should be placed in cocks. When cured in this manner more leaves will be retained and a better color will result. Hay should be cured rapidly enough to prevent molding.

Early Sown Oats Did Well

BY ROBERT McGRATH

We finished cutting our oats, and they are better than seen for many years. The ground upon which these oats were raised, was plowed in the winter. The soil is a sandy loam and dries off quickly, which aided us in planting them early.

We sowed 2 bushels of seed to the acre, and drilled them in shallow. After we finished drilling we ran a harrow over the ground with the teeth rather flat. This left the soil in excellent condition, and in two or three days the oats were up. This proves again that the early sowing is the better.

The English bluegrass looks good again this year. Most of last year's fall sowing was winter killed, but there is a considerable acreage of second and third year grass that will yield all the way from 10 to 15 bushels. Last year we had a 20 acre field which yielded 404 bushels and tested out 25 per cent.

This bluegrass stood nearly shoulder high and was so heavy it went down before it got ripe and as a result we could not get it all. We cut this field again the other day, which made the third year. It is not half as good this year as it was last, and there is more cheat in this crop. This will be the last time we will cut this field, as after the third year the cheat crowds out most of the bluegrass.

We will stack our bluegrass first this year, as it is the slowest to dry out after a rain and the easiest to spoil. Bluegrass, however, is a very easy grain to stack and turns water well. The worst part about stacking it is the loose bundles. Bluegrass as a rule is cut when the straw is rather green. The straw shrinks, leaving the binding loose. When it is being pitched it comes apart and you have a lot of loose straw to contend with.

We laid part of our corn by with a disk cultivator ridging it pretty well. Some persons object to this method because it leaves the ground in bad condition for spring work; but we find that 10 or 12 bushels more of corn to the acre is ample payment for all the extra work it causes in the spring.

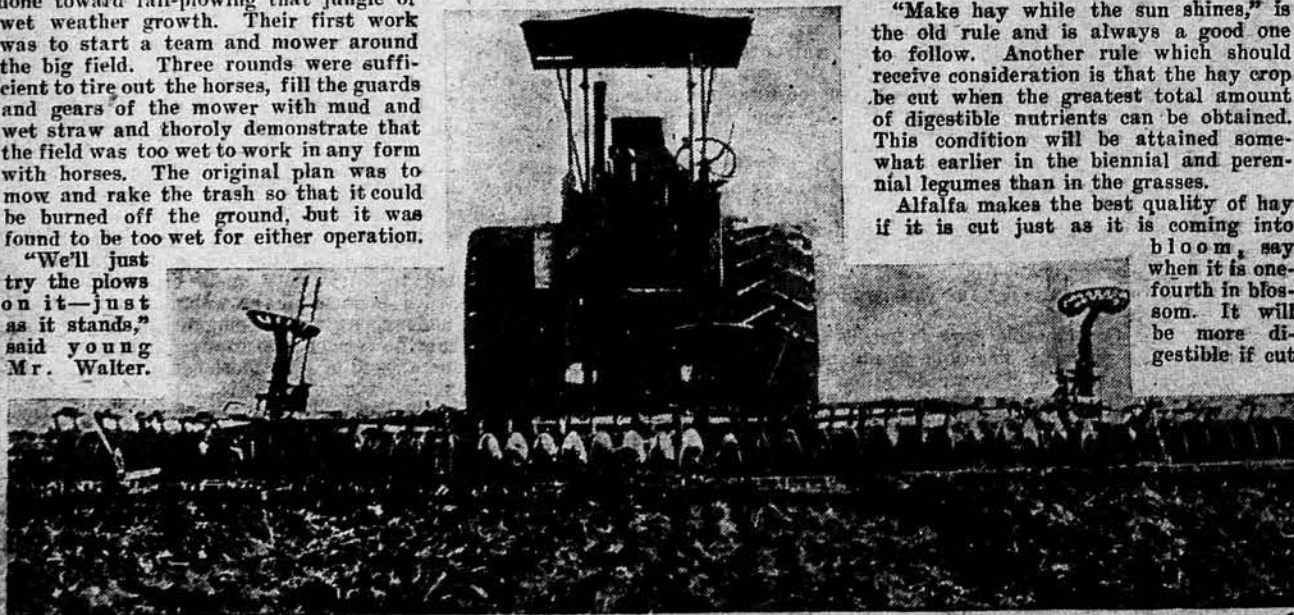
We were in hopes we would get all our corn laid by this way, but we did not. Our oats got ripe and we had to stop and cut them.

We have on this farm about 20 acres of flax, which seems to be bolting out fine. If this weather continues it will make a good yield. There is very little flax in this country this year. The dry years discouraged flax growing.

The last week was the hottest on horses of any this year. The horses did not sweat but panted instead. We find that a drink of water in the middle of the afternoon will go a long way toward keeping a horse from getting overheated. A good way to do is to take a barrel or two in a wagon and leave it where it will be handy. Horses get thirsty in hot weather as well as men.

The man who tries to drown his sorrows in drink would attempt to fight fire with alcohol.

Don't wait for the fool killer. Do it yourself.



Water, and Big Power

Oil Engines Have an Important Place in Sections That Have an Underflow

By A. A. Potter

IRRIGATION farming in Kansas depends on artificial power. The productiveness of an irrigated farm, and the profits of the man who works it, are greatly affected by the selection and care of the motor or engine used.

The type of motor or engine for irrigation purposes depends on local conditions. Power for irrigation purposes can be produced by windmills, steam engines, oil engines using gasoline or the heavier petroleum oils, gas engines using natural or artificial gas, and electric motors.

The steam engine is very uneconomical in small sizes and is too complicated for the average Kansas irrigation farmer. Windmills have a limited application in Kansas with some successful installations for irrigating fairly small tracts of land. The electric motor offers a very attractive source of power for irrigation farmers who can secure electricity at low rates from nearby electric transmission systems.

For the majority of the irrigation projects in Kansas, the oil engine using gasoline or the heavier petroleum fuels has the greatest field of usefulness. Whether in the form of a stationary, portable or traction engine, the oil engine has a great field of application, not only for irrigation, but for the various household and farm purposes. The development of the small traction engine which sells for \$1,000 or less gives the irrigation farmer an opportunity to consider a form of power which not only could be used for driving pumps, but also for preparing the ground and for taking care of the ripe product. More than 1,000 oil traction engines are in use now in 18 counties of Kansas for general farm work. Their use on an irrigation farm for pumping as well as for general farm work would lengthen the time of service and decrease the idle time during which the interest on the investment is working.

In purchasing an oil engine one must be careful to select one which will be large enough to do the required work, as oil engines, unlike steam engines and electric motors, will stand but little overload. On the other hand, an engine too large for its load will give poor fuel economy.

The best types of engines will deliver their rated power continuously and stand a small overload. The fuel feed, oiling and ignition systems must be simple and reliable. Either the electric or the hot bulb types of oil engines are satisfactory for stationary use. Good workmanship should be insisted on, and this in any engine usually is exhibited by smooth, noiseless running, and by the appearance of the various mechanical details of the engine. Owners of engines will find that money spent for good lubricating oils brings excellent returns in avoiding unnecessary shut downs.

There is considerable misunderstanding among farmers and other oil engine users regarding the different grades of oil on the market. The various grades of petroleum distillates or oils are obtained by boiling or refining crude petroleum, and condensing the vapors which are

driven off at the various temperatures. Gasoline and kerosene are among the lighter distillates of crude petroleum. Refiners grade their products according to the specific gravity which means in accordance with the relative weight of the oil as compared with an equal bulk of water. This is determined by a very simple and inexpensive instrument, called a hydrometer, which is immersed in the oil to be tested. The amount of heat in a pound of crude petroleum and of the various distillates is about the same. Thus the heat is very nearly the same in a pound of kerosene as it is in a pound of gasoline or in a pound of solar oil or in a pound of fuel oil.

The successful oil engine must not depend on gasoline for its source of power, but must be capable of burning kerosene and the heavier oils. The time is not far distant when gasoline will be used only for automobiles and aeroplanes, and the use of oil engines for irrigation or farming will be forced to select engines which will burn the heavier oils.

The so-called failures of oil engines and in fact the failures of pumping plants have been the result of criminal negligence on the part of owners and of operators. The housing and care received by the engine and pump in many irrigation pumping plants should force the organization of a "society for the prevention of cruelty to machinery," or possibly new legislation. No matter how well the engine may be designed and constructed, it will not produce results unless it is placed upon a proper foundation, if of the stationary type, surrounded and covered by a moisture proof and dust proof building, and handled by a person who not only can stop and start an engine, but has a reasonable degree of proficiency in the use of tools, some ability to repair machinery and enough common sense to keep the oil and water circulation within the proper limits.

I especially wish to emphasize the necessity of buying engines from firms that are interested not only in selling their product, but also in the record of their output in the field. The irrigation farmer is not expected to be a mechanical engineer and the reliability of the concern from which he buys means much to him. The companies selling the best engines are always open-eyed to see that their product does what it is designed to do, and are always ready with a stock of spare and duplicate parts to replace those which are broken or worn out. The follow-up system used by several large manufacturers is commendable. The user of engines and machinery from a reliable firm has an asset worth while.

Pumping irrigation in Western Kansas is developing rapidly. The business has definitely passed the pioneering stage, and this rapid growth has come as a

result of the big profits. Especially good returns have been obtained on the shallow lifts, where the depth to water is 50 feet or less. Along with this, however, has come very encouraging success on the uplands, and it seems that water may be lifted profitably from greater depths than was formerly thought possible.

Most of the pumping plants have been installed as drouth insurance, to supply the water needed for plant growth during the dry periods when the yield would otherwise be reduced greatly. As a general rule the larger part of the



Pumping the Underflow With a Tractor.

moisture is supplied by the rainfall, but a small amount applied by irrigation at the right time frequently has a very beneficial effect in increasing crop yields and profits. According to E. E. Frizell of Larned, the president of the Kansas State Irrigation congress for 1916, there were but two seasons in the 42 years he has lived in Pawnee county in which irrigation was not needed, and 1915 was one of these.

The average rainfall in Kansas, when taken over a series of years, is not increasing, and there is nothing to indicate that it will increase. Farmers are learning to use the water supply more efficiently, however, and this has resulted in a great increase in the yields. That is why the future of farming in Western Kansas is decidedly bright—there is going to be a greater growth in the agriculture in the western third of the state than is generally appreciated now. Much of this, however, is coming because of irrigation—from the use of the limitless supplies of water which the wise Creator has placed under this wonderfully fertile soil.

The Melons are in Bloom

BY HARRY A. HUFF

We have had another week without any rain and nearly all of the grain is in the shock. It has been the driest harvest in several years. Threshing will begin this week. I think that the wheat will average 18 bushels in this part of Dickinson county. There is some bottom land that will make more than 30.

The last week has been a busy one. I have been getting my watermelons ready to lay by. When I planted them I plowed two furrows together where I wanted the row and planted the melons on the ridge. They were hoed once and another furrow was plowed on each side. The ground between the rows had not been touched and the weeds were 2 or 3 feet high. There was crab grass in the rows and around the hills, and as I was short of help I got some boys from town to help me hoe. I pay them 12½ cents an hour and they board themselves. The boys are from 10 to 14 years old. I also

plowed the rest of the middles. This crop of weeds plowed under in the middles acts as a green manure and helps the melon crop.

I find that it does not pay to have a group of boys hoe unless I can be there, or have a man with them. I get the best results by having every boy take a row. I do not take a row but I hoe on any boy's row as he gets behind. Some boys will get discouraged if they get behind a little and will not work well, and others when they get ahead will slow up and hoe only fast enough to keep ahead.

By this plan first one boy will be behind, and then he will be ahead, and they all will work much better than if each one has to finish his own row. Some boys will do as good a job as a man, and some of them will not. Whenever I find one that I cannot get to do a good job, I turn him off. I do not try to make them hoe rapidly, but they must do good work.

The prospect for melons in Dickinson county is as good as it has been for a long time. They are blossoming now and there will be ripe melons by August 1. It is necessary to have a melon patch free from weeds until the melons are as large as a quart bucket. After that they will take care of the weeds. While the melons are blossoming and setting on a few weeds in the hill will hold them back and cut down the yield. If you have out a lot, and cannot tend to all of them, better have part of them clean than to have all of them half clean. You will get more and better melons. The cantaloupes are doing nicely, but they are not as far along for this time of the year as the watermelons. The first planting did not come up, and they had to be replanted. The sweet potatoes are doing well if they are free from weeds. They are later than usual. They will make a good crop if we get rain in August. There is moisture enough in the ground to make a pretty good crop of water melons.

Early Corn is in the Tassel

BY W. H. COLE

Corn is beginning to need rain here. When harvest came on the farmers had to quit cultivating their corn and kafir in order to save the wheat. Since harvest most of the corn has been cultivated and is in good condition, but the kafir in many places has been neglected.

A great deal of the corn is in tassel and farmers who have such fields are watching the weather with a great deal of anxiety. With the ground dry and the mercury above the 90 degree mark it would only require a few days of hot winds to fix the corn, but luckily there has been no wind for a few days and perhaps a rain will come before the wind does.

The threshing machines soon will be running here and the farmers presently will know how well they have been paid for their labor and seed.

A few years ago the owner of the machine supplied the whole threshing crew and boarded them also, but the custom evidently has gone out of date here for now the farmer who owns the grain has to get the help, which is supplied mostly by neighbors with whom he exchanges work. The crew for shock threshing generally consists of from 16 to 20 men. This gives the housewives plenty to do. Cooking dinner and supper for that number of hungry men is no snap.

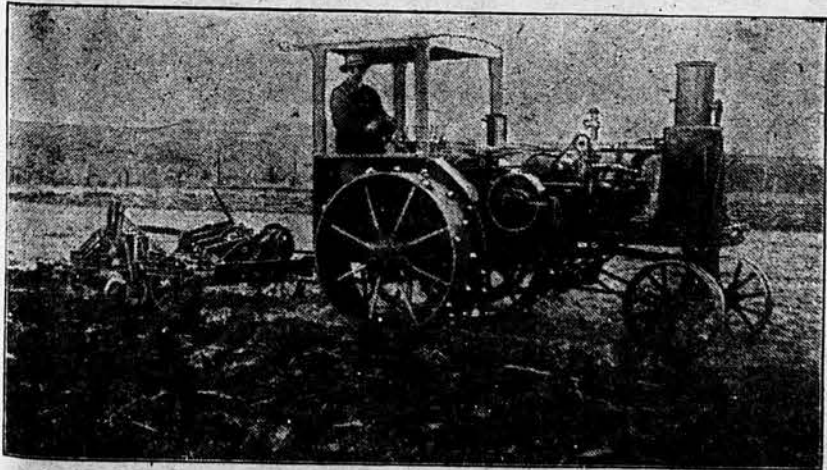
The price charged for such threshing by the machine owners is 4 cents a bushel for wheat and 2½ for oats. At first glance this looks like a very low price but by the time the neighbor farmers are paid and their board and the cost of the coal is added in, the price usually is about 10 cents a bushel for wheat and 5 cents for oats.

If a crew outfit was available we should rather pay them 12 and 6 cents and have the job finished.

We went to two extremes in the corn business on this farm last week. The first part of the week was spent in laying by our second planting, and later in the week we planted some more corn. The growing season here in Southern Kansas is a long one and with timely fall rains this corn should mature.

The devil rejoices more in one hypocrite than in ninety and nine genuine, Simon Pure sinners.

Many a man sacrifices his principle to success, and considers that he is getting it cheap at that.



A Farm Tractor at Work in Saline County Plowing Deeply For Wheat at the First of the Season.

HYATTS PREDOMINATE at all TRACTOR DEMONSTRATIONS

Watch the tractors as they work their way down the field at Dallas, at Hutchinson, at Fremont, and all the demonstrations this summer.

This one, that one—an overwhelming majority—are equipped with Hyatt Roller Bearings.

Why?—

Because Hyatt Roller Bearings have great carrying capacity. They withstand constant and enormous loads without injury.

Because the hollow Hyatt rollers cushion shocks and save the entire machine from sudden strain.

Because a steady circulation of lubricant is going on all the time the bearing is in motion, which reduces friction and wear to the lowest point.

Because absence of wear keeps gears and shafts in true alignment and makes adjustment unnecessary.

Because Hyatt Roller Bearings are care-free. They never need adjustment and require lubrication only two or three times a season.

Tractor manufacturers know that these advantages mean much to the man on the farm.

"Your Year Book of 1916 Tractors is a whole armful of catalogs in one" writes E. L. Baker of Allegan, Michigan. A postal request asking for bulletin 307-T will bring this free book which shows illustrations and specifications of models on the market this year.

**Make Sure that Your Tractor
Has Hyatt Roller Bearings**

HYATT ROLLER BEARING CO.
TRACTOR BEARINGS DEPARTMENT
NEWARK N. J. CHICAGO ILL. DETROIT MICH.

Let's Show What We Grow

Capper Pig Club Boys Should Exhibit at the County Fair

BY JOHN F. CASE
Contest Manager

THIS is going to be a good year for the breeder of purebred swine. I've talked with numerous breeders the last few days and every man is optimistic. Live-stock auctioneers and farm paper field men also agree that there's going to be a big demand for choice breeding stock. "Every man who has good pigs to sell will be able to



Boyd Howell, Plains, Kan.

find a buyer before the breeding season begins next year," remarked one of my auctioneer friends recently. "And when you are looking for quality goods," I came back at him, "don't forget my pig club boys." Cultivate your auctioneer acquaintances, fellows. They have a fine opportunity to place your surplus stock.

I've contended from the beginning that every member of our club who has stock worth keeping for breeding purposes will be able to sell for breeders' prices. But you must not be afraid to "speak up in meetin'" and let folks know that you are in the business and have purebred stock with good blood lines back of it. Here's a homely couplet that you will do well to remember: "The boy who has good pigs to sell and goes and whispers down a well, isn't as likely to collar the dollars as the boy who climbs a tree and hollers!" Get the point? Ray Jones who probably has secured more valuable publicity than any other club member simply because he's making a noise like a winner all the time, has sold \$110 worth of pigs and has a number more to dispose of. And Katie the Hampshire contest sow is worth more than the \$50 she cost. Don't let your boosting spirit become simply a boosting spirit but get out and root for the club, your breed association and your own contest litter. "Blushing violets sell no pigs." Let's keep on telling folks that ours are the best pigs in Kansas. We've got the quality to prove it.

Many fine friendly letters have come to me recently and I appreciate them every one. If I've been slow about answering, fellows, just remember that I'm a pretty busy chap. So consider our department in the Farmers Mail and Breeze your personal letter and let me have your letter and picture to continue making it interesting. I know that almost every club member watches eagerly for the letters from our folks. "It seems good to have you back again, Mr. Case," is what the boys said after we missed an issue on account of my boy's illness. And I enjoy it as much as you do.

Last week I attended a meeting of county farm agents in St. Joseph, Mo. Kansas was well represented and I met a number of county men who are helping pig club boys with their work. H. L. Popenoe, Lyon county agent, told about his pig club work and how enthusiastic the boys and girls are over the fine growth of their pigs. Agent Popenoe coached Victor Hurt, the chap who fed the prize pig last year, and he told us

about visiting a 12-year-old boy whose contest pig is far ahead of any others on his father's or neighbors' farms. While feeding one pig is educational and profitable work, I believe our plan of a purebred contest sow and litter is far better. There's more in swine raising than just feeding a pig. You've learned something about hogs this

year haven't you boys? I think all of us have. If there's a county man in your county or even in the county adjoining don't hesitate about asking him for advice. The Kansas delegation impressed me as being the rolled-up-sleeve sort of chaps.

Western Kansas boys are showing the real kind of pep. Some of our most enterprising members live away out in the short grass country. One of the best of them is Boyd Howell, Seward county representative. Boyd, a Poland China enthusiast, paid \$50 for Matilda and I'm willing to place a small wager that we will have the pleasure of duplicating a county fair prize for this contest sow is going to the fair. Remember, boys, that Arthur Capper will duplicate every cash prize won by a member on his contest sow when exhibited at the home fair. We will not duplicate prizes on the pigs but you should exhibit and win with them also. Secure a certificate of award from the secretary and send it to me. I'll see that you get a check by return mail. Here's what Boyd Howell writes from the home farm near Plains:

"Here's my picture with Matilda and the pigs. From the looks you would think I'm a negro but I'm not quite that black. Don't you think the pigs are fine lookers for hot, dry Western Kansas? They are growing fine and I think I have the finest sow and pigs in the county. I should like to meet you all in Topeka next September but I do not know whether I can or not as that is the week of the Seward county fair and I intend to take Matilda and her pigs to the fair."

Boyd needn't worry about his looks. As I've remarked before this isn't a beauty contest and our Seward county friend is dressed up exactly as I like to meet my friends on the farm—in everyday clothes. Sure thing, Boyd, your pigs are "good lookers"—good enough for Western Kansas or any other section. I hope you take all the other contestants to a cleaning. And come to Topeka if you possibly can.

Now we are back to the Durocs again. Andrew Hauck of Newton, Harvey county, is one of our oldest members, and he looks big enough to play football. Andrew paid \$35 for his contest sow and she has a fine lot of pigs. The picture shown here was taken in May and the pigs should be fine big fellows now. "I could only get three of the little fellows in the picture," wrote Andrew,

(Continued on Page 35.)



Andrew Hauck, Newton, Harvey County, With Some Red Hogs That are Good. Got any Better in Harvey County?

Dry Weather Aids the Work

The Crops in Coffey Are in Much Better Condition

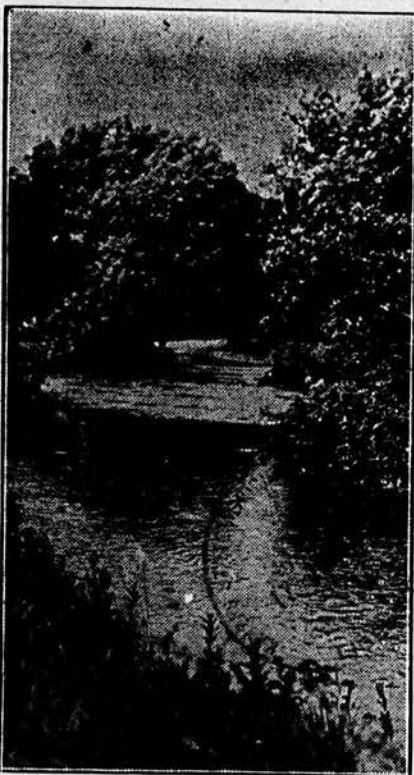
BY HARLEY HATCH

SIX DAYS have passed without rain and in those six days a marvelous amount of work has been done in this corner of Kansas. On most farms the corn plows have been running overtime and the work of corn cultivating has been mixed up with oats harvesting, alfalfa haying and wheat cutting. The oats crop ripened up in a hurry and the bulk of it has been cut, most of the work being done in the last three days of June.

When oats ripen they have to be cut. Wheat can stand a long time without much loss but oats will begin to crinkle over almost as soon as ripe. Even where the straw stands up stiff it does not take long for the oats to become separated from their hold on the stem. In 1908 we had 4 acres of oats which was not cut when a wet spell came on; we got into them just as soon as possible with a mower—it was so wet that a binder could get no traction—but when we went to take up the straw all the oats fell off. These oats stood in the field less than a week after ripening. Probably the extreme wet weather had something to do with loosening their hold on the straw.

The first thing harvested on this farm was the English bluegrass. There is no crop so hard to elevate and bind as bluegrass and cutting that crop usually is a job requiring all the patience of Job, but this year we did not have a bit of trouble. Not a stop was made to free the elevator rollers from grass and the cutting went along as well as if we had been cutting oats. This was because we had just invested in a new under elevator canvas and had tied the flaps down securely so that no grass could work under and get wrapped around the rollers. I have often cut off a bunch of grass from the under roller as big around as a stovepipe. It needs but the smallest chance for the grass to begin the wrapping operation. A good motion must be kept up in cutting bluegrass; a slow team will not do for this job.

The oats on this farm are all in the shock and if looks go for anything our horse grain is assured for a good while to come. Some leaf rust was present on the oats and I have never known this to indicate any good to the prospective yield but in this case I think a minimum of damage has been done. At any rate, all the tests indicate that the grain is fairly well filled; the bundles are grain to the band and when the bundles are picked up the head end slants down indicating that there is some weight there. The oats crop is uniformly good here; not



Protection from the Heat.

the appearance of that to your imagination, based on your experience.

So that on this 240-acre farm we have 14 acres of poor corn and 6 acres of kafir which is scarcely ordinary. For the rest, the 80-acre pasture is full of grass, the prairie meadow has a fine crop and the 18 acres of alfalfa has for a second crop a much better one than was cut the first time. The potatoes look the best of any we have raised since 1906. The oats are good and are all in the shock; no weeds or grass in them but all clean straw. On the whole we ought to be satisfied. The good corn is on naturally moist ground and can stand an almost unlimited time without more moisture.

The creek bottom field of corn which was hit the worst has not yet been cultivated the second time. By tomorrow I think it will be dry enough to work—and tomorrow is the Fourth of July. The weeds on this field were to a large extent cut out with hoes but the grass followed right along and has made a solid sod. It remains to be seen what can be done with the cultivators. The weather is very hot and the field has trees around it on practically three sides. The south breeze is kept entirely off and it will be like working in an oven to go into this field. If we cannot clean it out without killing the horses we will just let it go for about 10 days and then plow it up and sow it to wheat this fall.

Every night the breeze drops down and until the sun rises again there is not a breath of air stirring. With the coming up of the sun the breeze begins to stir the leaves on the trees and by noon there is air enough in motion to make working conditions fairly good. I don't like to think what would happen to the men and horses working in the small grain and cornfields should conditions be reversed and the breeze blow at night and

(Continued on Page 31.)

since 1912 has the outlook for this grain been better.

Altho we have a bad farm for a very wet season such as the present one has been to this date we cannot complain at the way we have been used. We have 12 to 14 acres of corn which looks bad; some of it even at this time is on ground still too wet to cultivate so you may know what the corn looks like. The wet spell lasted from May 24 to June 24, too long a time for corn to stand with sopping wet feet. But on the well drained ground we have a good chance for corn. I am sending in a picture to show how it looked on June 24. I would not care to send a picture of the poor corn; I will have to leave

Before You Buy That Tractor—

Look Well to the Magneto!
It is of the greatest importance—
You can't be too particular!

The
EISEMANN
MAGNETO

gives a sure, hot spark. It means easy starting, more power and less gasoline used.

You want a Magneto that will stand dust, rain and the steady grind of hard farm service.

The great ignition experts know how vitally important the Magneto is. They don't take chances. This is why Eise-mann is the standard equipment of 108 manufacturers of Tractors, Trucks, Pleasure Cars, etc.

Insist upon an Eise-mann
on your tractor. They will
give you what you want!

See Us at Hutchinson
Tractor Demonstration, July 24-28

We will also be represented in the Demonstrations at Fremont, Neb., Aug. 7-11; Bloomington, Ill., Aug. 21-25; and Indianapolis, Ind., Aug. 28-Sept. 1

THE EISEMANN MAGNETO CO.

Sales and General Offices: 32-33rd St. Brooklyn, N. Y.,

Indianapolis, Ind.,
415-417 N. Capitol Ave.

Detroit, Mich.
802 Woodward Ave.



The Corn is Growing Rapidly on the Bottom Soil and a Good Yield is Indicated if Enough Rain Comes in July and August.

More Livestock Is Needed

Agricultural Progress Rests on Animal Production

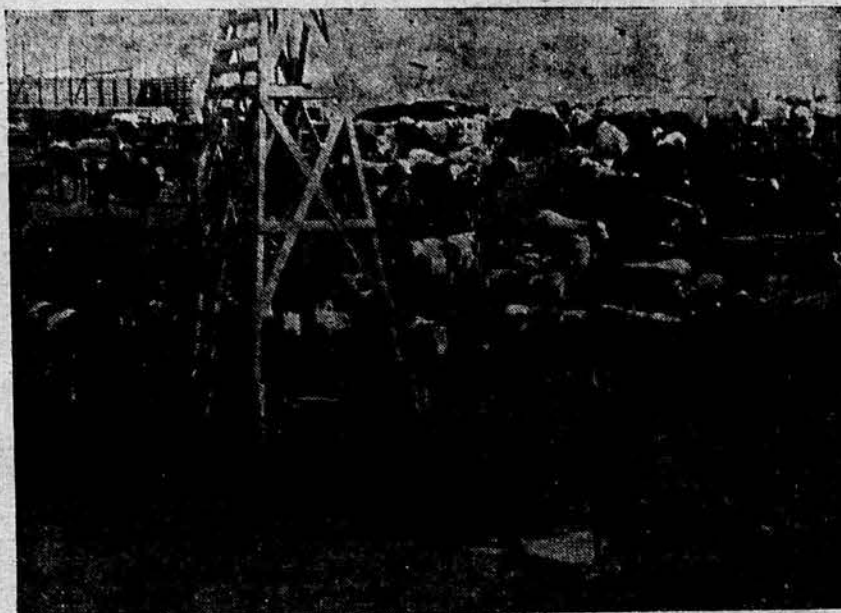
BY F. B. MORRISON

THE WHOLE world over, as well as in Kansas, the most enlightened and progressive agricultural districts are found where livestock provides one of the chief sources of income. This is due to several reasons: The livestock farmer cannot live from hand to mouth, but must providently lay in a store of feed for his animals throughout the winter months. This same care and foresight is then carried into his other activities. Under some systems of agriculture the returns from the year's crops all come in at once, which makes for extravagance and idleness, with resultant poverty until another crop is harvested. On the other hand, under most systems of livestock farming, the income is received several times during the year.

The care and control of domestic animals, which are intelligent yet submissive to his will, tend to develop the best instincts in man and to make him kindly, self-reliant and trustworthy. The good stockman grows proud of his sleek, well-bred animals and derives a satisfaction therefrom not measured in money. With pride he may hand down to his sons his reputation as a breeder.

therefore possible only when the relative value of these different products compared with each other and with the farm-grown crops is clearly understood. In seeking a knowledge of feeds and of feeding we must first consider the plant substances which provide the nourishment for farm animals and study the manner in which these compounds are built up in the living plant. Next we should learn how the food consumed by animals is digested and utilized within the body for the production of meat, milk, work, or wool, and should also study the requirements of each class of animals for food, water, shelter, and exercise. Only then are we in some measure in a position to understand the value and merits for each of the farm animals of the many different feeds, and finally to consider the principles of care and management, the constant observance of which is essential to the highest success in animal husbandry.

Harrows, disks, and cultivators should all be looked over carefully. Dull harrows are very inefficient tools to use. The blades of the disk should be sharp-



Livestock Farming Is Required as the Basis for the Great Material Progress Which Is Possible Here in Kansas.

He also is able to leave them fertile fields which he has built up rather than robbed, which is a heritage bequeathed by but few grain farmers.

In the early days, with land low in price, pasturage abundant, and feed and labor cheap, making a profit from livestock farming was comparatively easy, even though one possessed little knowledge of the principles governing the feeding and care of stock. Conditions now have changed. The great western prairies no longer offer rich fields free for the taking, and hence throughout the country fertile land has advanced in price.

No less marked has been the increase in the cost of labor and of feeding stuffs. But the price of livestock products has also advanced, so that satisfactory profits may still be realized from farm animals. However, present conditions call for a more intelligent type of stock farming than has ruled in the past. Good profits are possible only when all the operations are planned intelligently and with good judgment, and there is a thorough appreciation of the requirements of the various classes of animals for food and care.

In the pioneer days of our country the feeds commonly used for livestock were restricted to the grains and forages grown on the farm. Knowledge of the value of these farm-grown products is not now sufficient for intelligent feeding. The problem is complicated by the host of by-products resulting from the manufacture of articles of human food which are offered on the markets as feeding-stuffs for stock. Many of these are valuable and economical supplements to the feeds raised on the farm. However, such products vary considerably in price and even more markedly in nutritive value.

The most economical feeding is

ened and the bearings should not be neglected. Renew them when necessary. Dull shovels on cultivators cannot be expected to do efficient work.

A GIRL'S PROBLEM

How to Feed Herself When Running Down.

A young lady in Ohio writes: "Some time ago when I was a stenographer my health began gradually to decline, and I faced the problem of finding relief or leaving my situation. Worry added to my trouble; I became dyspeptic and nervous and suffered with insomnia and restlessness at night."

"I was speaking of my illness one day to a trained nurse, who recommended that I begin a systematic diet of Grape-Nuts, as she had seen its beneficial effect upon several of her patients."

"So I began to use the food conscientiously. In about two weeks time I began to feel stronger and more hopeful; my digestion and appetite were better; I was less nervous and could sleep. I continued steadily and soon began to think success lay somewhere in this big world for me."

"My work grew smoother and easier and after seven months on Grape-Nuts I could work easily and without feeling exhausted."

"Today I am filling a much more responsible position and do the work satisfactorily. I attribute it all to Grape-Nuts which I still continue to use. For a palatable and healthful diet, there is nothing on the market to equal it."

"There's a Reason." Name given by Postum Co., Battle Creek, Mich.

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

WHEN the Goodyear Service Station Dealer talks to you about Goodyear Tire Accessories, credit him with trying to render a real service.



The Goodyear Service Station Dealer Sign

He will show you that the Goodyear Tire Saver Kit contains materials for making road repairs when accidents occur.

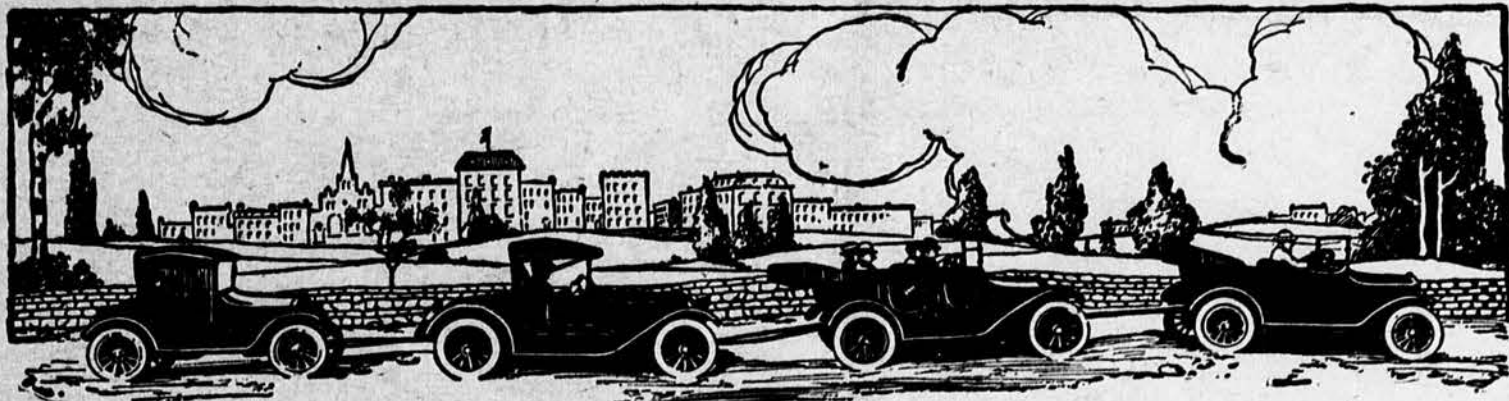
He will test your wheel alignment; he will suggest an Inside Protector if such can add to the mileage of an old tire; he will recommend Goodyear Tire Putty to fill tread cuts and prevent damage from dirt and water.

He sells *tire satisfaction* in addition to tires; he is not content until you are fully and finally pleased.

GOODYEAR
TIRE ACCESSORIES

Goodyear Tires, Tubes and Tire Saver Accessories are easy to get from Goodyear Service Station Dealers Everywhere.





How the Texas Tube test happened!

IT nettled Bill Parr considerably!

So many Motorists had carelessly stated that "all Tire Tubes are just Rubber."

He determined to show some folks the difference, in a way they would never forget. There were four Cars at the door, and their Owners or Drivers at his elbow.

To these he said,—

"Boys,—how strong do you think this Goodrich Brown Tube *actually* is?"

"Do you believe it is strong enough to tow Mr. Oden's five passenger Car, with four people in it, from here for 20 blocks?"

"You don't, eh!"

"Well now here's a bit of a Bet I want to make with any, or all, of you.

"I will bet you a Dinner that this little old regular Goodrich Tube (34x4) will not only tow Mr. Oden's Car, but will tow *all three of your Cars*,—fully passengered,—through the streets, for the full 21 blocks (more than a mile and a half)—starting and stopping as many times as the crowd makes it necessary.

"I will,—if you Gentlemen are agreeable,—line up all four of your Cars, right here and now, take three regular Goodrich Tubes hap-hazard out of their boxes,—tie one tube between each two Cars, (which means hauling three Cars on the *first* Tube) and tote You—all that way to 'The Corners.'

"Are you willing to bet a Dinner that any one of the three Tubes will 'go broke' on the way, or show a flaw which would leak Air, or prevent its being used for its original Tire purpose afterwards?"

"You are, eh?"

"Well,—the Bet's on!"

"Come along, and you be the Judges."

* * *

THE Dinner was a very Cheerful Affair.

As Oden said afterwards (when putting up his share of the Bet) "you could have bet me a Million on that, Parr, and I'd have taken you up,—even if I had to borrow the Million.

"I don't see how the blamed Tubes ever *did* hold out,—especially going up Saco St. under such a strain.

"With eight people in the last three Cars,—and a total load of over 8,800 pounds I sure thought to hear something snap before second block.

"Whaddye put into that brown Goodrich Rubber anyhow, to make it hang together like that?"

Fritz said that what puzzled him most was the brown Rubber Tubes "not being all stretched out of shape after such a tug, even if they *did* hang together at the finish.

"Look you," said he, "when we released the load,—after the Haul,—they instantly snapped back into just three-quarters of an inch longer than they were at the start!"

"And that $\frac{3}{4}$ of an inch, they took up again in less than two hours rest."

* * *

"WELL, boys,"—Bill Parr remarked,—as he smoothed out a wrinkle in his well-filled vest, "that'll stop the Argument about all Tire Tubes being 'just Rubber,' won't it?"

"If the Brown Stuff that toted all you Heavyweights,—and your Cars,—for 21 Blocks without a Sign of Heavy Duty afterwards, isn't something MORE than 'Just Rubber,' like other Tubes,—then you'd better buy the 'Just Rubber' kind hereafter.

"I'm going to ask *all* of you to sign your names to this 'Texas Tire Tube Test,'—just to show that you have taken part in a *regular* Exploit which is mighty well worth recording."

So indeed they did,—and here is the affidavit!

AFFIDAVIT

This certifies that we, the undersigned, took part in and witnessed, the Texas tube test referred to in the advertisement entitled "How the Texas Tube Test Happened!"—that the test was made on date of Nov. 11, at Waco, Texas, the distance covered being twenty-one blocks and that the result was as described.

Signed— W. M. ODEN
J. M. NASH
B. A. FRITZ
W. A. PARR

Subscribed and sworn to before me by W. M. Oden, J. M. Nash, B. A. Fritz and W. A. Parr, this the 3rd day of May, A. D. 1916, at Waco, Texas.

Signed— J. G. WREN,
Notary Public,
McLennan County, Texas.

Now what think You of these GOODRICH Tire Tubes that could bear up under such a gruelling test? Reflect that they cost you no more than the "ordinary" Tubes you so carelessly accept!

GOODRICH

"Texas—
—Test"

INNER-TUBES

TIRES

THE SANDUSKY TRACTOR

"THE LITTLE FELLOW WITH THE BIG PULL"

15 Draw Bar H. P.—35 Belt H. P.

The Sandusky Tractor will continue to hold a prominent position at the Nineteen Sixteen

National Tractor Demonstrations

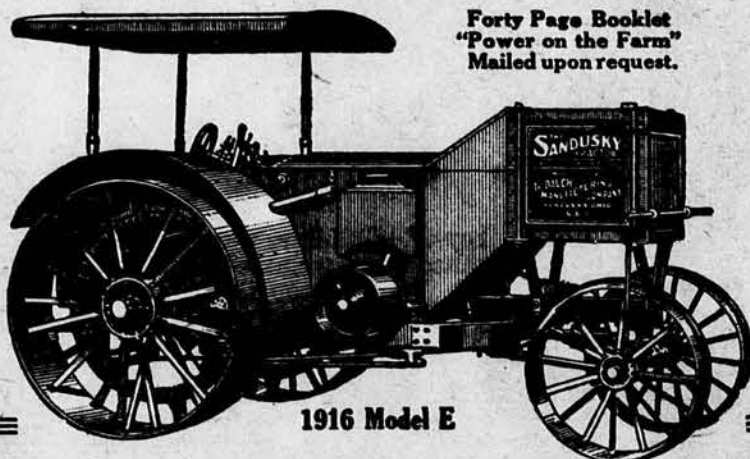
See It At

Hutchinson, Kansas

July 24-25-26-27-28

Factory and Local Representatives will gladly explain its superior merits.

The Dauch Manufacturing Company
82 Water St., Sandusky, Ohio



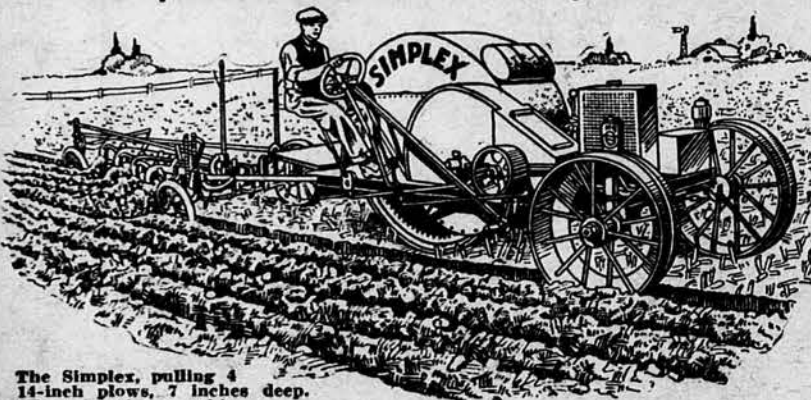
Forty Page Booklet
"Power on the Farm"
Mailed upon request.

1916 Model E

The "Four-Plow" Tractor

Is the most economical for the farmer, giving the greatest amount of service at the least cost. The Simplex is the ideal four-plow tractor; first in power, in simplicity of construction and operation, in accessibility of all working parts, and lowest in price.

See the Simplex Work at Hutchinson, Kan., July 24th to 28th, 1916



The Simplex, pulling 4 14-inch plows, 7 inches deep. (From a photograph).

A heavy-duty four-cylinder 5x5 motor, supplying 30 horse power on the belt and 15 on draw bar, at 750 R. P. M.

Two speeds forward and reverse; cut steel gears running in oil bath in dust-proof case, Hyatt heavy-duty roller bearings, Perfex Radiator, with 20-inch fan, all parts easily accessible and replaceable, simplest and most economical to operate.

Price \$950 f. o. b. Factory. Immediate Delivery Guaranteed.

We Want Dealers: ANY MAN who can sell tractors can establish a permanent and profitable business under our liberal sales policy. Every Farmer Needs a Tractor. Write For Particulars. DO IT NOW.

The Dealer's Opportunity—Big business is to be done at demonstrations, and under the liberal Simplex Sales Policy any man who can sell Tractors can establish a permanent and profitable business.

SIMPLEX TRACTOR COMPANY
1615 Central Avenue. MINNEAPOLIS, MINN.



5 YEAR
GUARANTEE

Sample Watch Free

Genuine full standard size refined style watch with locomotive on dial and locomotive hands. Guaranteed for 5 years. Full nickel plated case, extra dust proof, stem wind and set, fully GUARANTEED for 5 years. To advertise our business and introduce this wonderful watch and our great catalogue of High, Watch and Clocks, we will send this elegant watch to any address by mail postpaid for ONLY \$1.50 and if you will send us two of these watches we will give you ONE SAMPLE WATCH FREE for your trouble. Send this advertisement today to this offer may not appear again. Address: R. E. CHALMERS & CO., 698 So. Dearborn St., CHICAGO, ILL.

How Much is a Horsepower?

The Term Does not Mean What the Average Person Believes It Does

BY RAYMOND OLNEY

THE term "horsepower" is one that is easily misunderstood by the average farmer, especially so when it is applied to drawbar power. His knowledge of mechanics being limited, he ordinarily thinks of a tractor rated at so many drawbar horsepower as the equal in pulling ability of that number of horses, which, of course, is not true.

In his experiments on the draft of horses, F. H. King found that about the maximum walking draft of a horse is one-half its own weight; and pulling with this intensity at a speed of 2½ miles an hour, the power developed by a 1200-pound horse would be 4 mechanical horsepower. For steady and continuous work 10 hours a day, at the same speed, it is commonly allowed that the horse should not be called upon to pull more than one-tenth his own weight; at this rate a 1200-pound horse would develop four-fifths horsepower. The average farm horse, particularly for heavy work, will not travel as fast as 2½ miles an hour, and probably will develop at the slower speed an average of not more than two-thirds horsepower.

Now if a farmer gets a 12 horsepower tractor into a tight place and finds that it will then pull no more than a four-horse team, he is quite apt to wonder what is wrong, and the cause of his wonder is the confusion resulting from our method of rating. This is one reason why I maintain that the present method of rating drawbar pull of tractors is wrong. The farmer has a right to demand a more understandable method.

Suppose the man who wants a tractor visits one of our public power-farming demonstrations, where he sees machines of nearly every make and size demonstrating their ability to pull plows. Here we will say he finds three different tractors, each pulling a gang of four plows, which we will assume is the normal full-load capacity of each. One may be rated at 12 horsepower, another at 15 horsepower, and another at 18 horsepower, but each pulling the same number of bottoms. This is no puzzle to the engineer, but it is to the farmer; it is decidedly confusing to him, because he is not familiar with the relation of speed to power.

The greatest objection, as I see it, to the present method of rating is that it gives the prospective purchaser no understandable means of comparing at once the actual pulling ability of the different makes and sizes of tractors.

There is a tendency at present to rate the pulling capacity of tractors according to the number of plows they will haul under average soil conditions, say, a two, three or four-plow machine. But this method is as unsatisfactory as the one now in use, for the reason that the term "average soil conditions" means something different for different kinds of soil. The draft of plows not only varies widely in different kinds of soil but in the same soils under different conditions.

I am convinced that the only logical method of rating the pulling ability of tractors is in pounds. Tractor engineers have discussed this subject to some extent, and this method seems to be gaining support. A tractor concern which has taken the lead in this direction, makes the following statement in its catalog as to why it favors a pounds-pull rating:

"We rate the power of our tractors in actual pounds pull developed at the drawbar, because the wide difference in ratings of identical size motors given by various manufacturers, and the variation of mechanical efficiency of different tractors, makes a horsepower rating of little real value to the purchaser in determining just what any tractor with merely a horsepower rating will pull."

The farmer is not so much interested in the amount of horsepower that a tractor is supposed to develop at the drawbar; he is more concerned with the actual pulling force it is capable of exerting on a plow or other implement. If the drawbar rating of your machine is in pounds pull, you are giving him

something tangible, and throughout a fairly wide range of motor speeds this pull will remain almost constant. There is no confusion in his mind as to the tractor's actual drawbar capacity.

In case this method of rating is adopted as standard, as no doubt it will be sooner or later, it will be essential to have the tests on which the different ratings are based carried on under some sort of official supervision. Equipped as it is with its fine corps of trained experts and the excellent facilities at its disposal, it is a wonder to me that the United States Department of Agriculture did not long ago see the vital need of a standard rating for farm tractors, to the extent of taking some action in this direction.

The basis for the drawbar rating should be the pounds pull exerted in an actual pulling test. The drawbar test should be made with the motor running at its critical speed and with the tractor traveling at its best working speed as fixed by the gear ratio.

Personally, I am of the opinion that, for all practical purposes, it would be sufficient to have tests for establishing drawbar ratings made on hard, level ground, such as a good, dragged dirt road, where slippage for most tractors would be negligible.

While draft tests conducted on a dirt road would show a higher drawbar pull than a tractor would be capable of delivering in a sod, stubble or plowed field, it would be a much less difficult problem to get standard conditions of footing there than in a field where ground conditions may be extremely variable.

A method of indicating a tractor's rating, that already has been suggested, is by means of a double figure, as is the present practice, but to use pounds-pull instead of the drawbar horsepower; as 1500-20 instead of 10-20, or 2000-25 in place of 12-25, the first figure in the combination representing the pounds-pull and the second the brake horsepower. With this rating should also be included the tractive speed at which the machine will operate best under load.

To Reduce Fly Injury

A few days ago I was told by farmers in Mitchell county that a lecturer for the Farmers Union and, by the way, a state senator too, had made the statement in a public address that if any farmer should follow the plan advocated by the agricultural college for preventing the Hessian fly he wouldn't raise a bushel of wheat.

The college says, I believe, to plow under all stubble as quickly as possible after harvest, keep the ground surface tilled to prevent the growth of any volunteer wheat, rye, or barley, and sow the wheat late enough so that all the fall brood of flies will have emerged and died before the wheat shows above ground.

This date, I believe, for Northern Kansas is about October 5, tho it may vary a little.

Now every practical wheat grower in Kansas knows that with the exception of the slightly deferred date of seeding, this is exactly the way to handle the soil to get the best possible yield. And if one will seed promptly after the fly free date and use a little more seed to the acre his yield will not be materially reduced by the later seeding.

There are hundreds of fine fields of wheat in Northern Kansas this year seeded later than October 5 last year, very many of them will yield twice the average for this section of the state.

Concordia, Kan. A. F. Turner.

Tommy—"Pa, was writing done on tables of stone in the old days?"

Pa—"Yes, my son."

Tommy—"Then it must have taken a crowbar to break the news."

Wash all dairy vessels in warm water first, then in water as hot as the hands will stand. Into this hot water put some good alkaline wash powder. Do not use soap, as it may leave a taste.

Hold for High Wheat Prices

Grain Usually Sells Better if You Wait a While

BY F. E. NICHOLS, Field Editor

THERE will be a vast amount of wheat stored on Kansas farms this year. Experience has demonstrated that on an average it pays well to hold wheat until after the flood stage of harvest has passed, which means to keep it on the farms until along in the fall or winter. This was especially well shown in 1914, when farmers who kept their wheat got at least twice what the farmers who sold in July obtained.

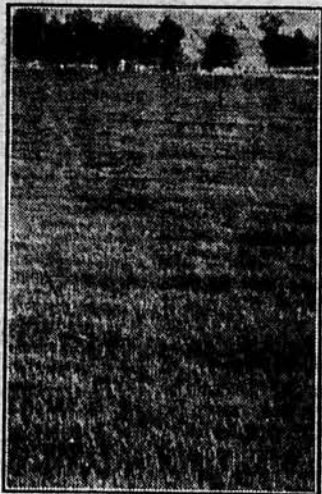
Of course there are some men, usually tenants, who are farming under contracts which require that the wheat shall be sold at threshing time. Then there always are some men who insist on selling at this time anyway, despite the fact that the larger profits are obtained by the producers who hold it for a higher market. Both classes need not make up a very high percentage of the farmers of the state, however, and if the rest of the growers hold for a high market they will make more money and also tend to give steady prices.

Holding the wheat in this way also will help in solving the transportation problems materially. All the railroads in the Middle West are making every effort to handle the situation this year; some of the companies, such as the Union Pacific railroad for example, issued orders in regard to the handling of the cars, especially concerning getting them into the wheat belt, as early as April. Of course the vital thing with the producers is not that they will help in solving the transportation difficulties or the problems of the central markets but that they will make more money from the crop if they hold the grain until the flood stage of the wheat has passed. In speaking of this recently, J. C. Mohler of Topeka, secretary of agriculture, said:

"An important feature of holding wheat is the influence it may have on maintaining and bettering prices, by keeping the grain on the farms away from the glutted markets. Lower prices naturally follow big productions, but it is imperative to the farmer's best interests to hold prices at the highest level good management makes possible. It is the dollars that count with a farmer, rather than the number of bushels he has garnered, and he should do every reasonable thing to secure maximum returns from the wheat he has. Dumping wheat on a glutted market makes conditions in which the grain speculator revels, but in which the farmer finds no joy."

In deciding whether to hold or to sell wheat a farmer quite naturally should consider what the market has done in other years. He should consider how the "hold the wheat" campaign has worked out. In telling of this in 1914, when wheat was selling for as low as 58 cents a bushel in some Kansas towns, the Farmers Mail and Breeze, in the issue of July 4, said:

"There will be a great congestion in the movement of the wheat crop in Kansas this year. Prices are certain to be low before the flood stage of the wheat wave has passed—they are low



Potential Wheat Profits.

enough now. Judging from the lessons of past years it will pay well to hold wheat this year until the market is in a shape to handle it better. A farmer who 'dumps' his wheat when the greatest movement is on cannot expect the highest price. If the wheat is stored in a bin, insect damage can be prevented by fumigation with carbon bisulphide. Losses from natural causes to stored wheat need not be large if care is taken.

"The law of the average has shown that the price of wheat usually goes up after the bulk of the crop has been moved. It would seem should especially hold true this year, when the crop is larger than the average. It should pay well to hold the wheat. Delay the selling until the bulk of the other growers have unloaded, and get all the profit, instead of having most of it go to the speculators in wheat, who never grew a bushel of the grain in their lives."

Farmers who followed this advice later had the privilege of selling wheat priced at 58 cents a bushel at that time for \$1.45, which helped some.

Some farmers do not hold their wheat because they have had trouble with weevil in the bins. There need be no trouble from this source if it is handled properly, for the cost of protecting the grain is low. Grain infested with weevil should be treated with carbon bisulphide at the rate of 1 pound or pint to every 250 cubic feet of bin space. Generally 2 pounds will be sufficient for every 100 bushels of grain. The carbon should be placed in hollow plates or pans on top of the grain, and allowed to remain at least 24 hours. The carbon evaporates and the gas, being heavier than air, sinks to the bottom of the bin, destroying all insect life.

If the grain is to be used for seed, it should not be treated for more than 30 hours. Longer treatment will not injure the grain for milling purposes. After treating the grain keep the bins well closed to prevent reinfestation. Damage from this insect will be lessened by storing the grain in a dark, cool, well-ventilated place and covering it to help to prevent the access of the moths.

If the wheat is to be stored this year it is necessary that the bin room should be provided soon. The old bins should be repaired and cleaned out, and if the storage room is not available, which is the rule on a great many Kansas farms, it will be necessary to provide new storage space. These bins should be built before harvest if possible, so they will be ready at once if the threshing outfit comes to the farm at the start of the season, which is exactly what will occur on a great many places.

Care should be taken in building bins to get storage space that is dry, where the grain will be well protected from rats and similar pests. It is quite likely that the sale of metal bins will be somewhat reduced this year, as the price of the material used in these bins is much above normal. There will be a far greater use of wood than ever. Some farmers have built bins in the usual way

(Continued on Page 37.)



Threshing Wheat in the Summer of 1914 in Pawnee County; This Grain was Stored, and it was Sold Later for \$1.32 a Bushel.

GRAND DETOUR PLOWS

What Plow Shall I Buy?

You can answer that question most easily by going to the Tractor Demonstrations.

You can answer it best by following the Grand Detour Plows at the Demonstrations.

Watch them turn over the sod in clean deep furrows—they'll do the same in your soil. Watch how perfectly they fit every tractor—they'll fit yours just as well.

Notice especially the Grand Detour "Junior." Lightest, strongest, best—it's the plow of the year for small tractors. Solve the plow question by buying a Grand Detour.

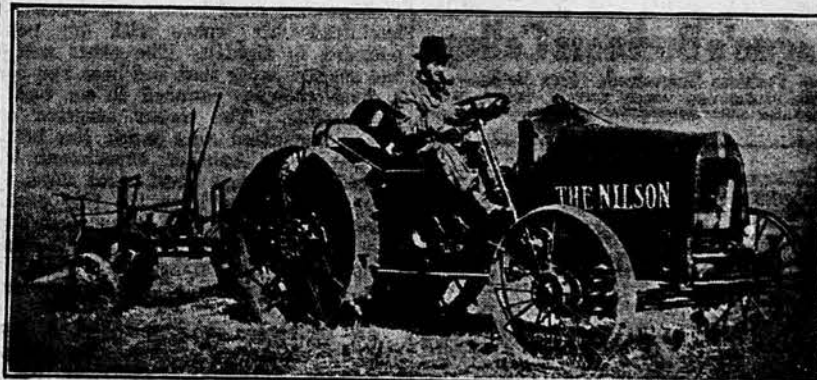
Make yourself at home at the Grand Detour tent—we'll be at Hutchinson and all the other shows and write now for particulars about these wonderful plows.

GRAND DETOUR PLOW COMPANY

Established 1837
245 Depot Avenue Dixon, Illinois

Russell A. Reed, Eastern Sales Mgr.
30 Church St., New York

THE NILSON



The Quality Tractor With the Pull

Lightest weight tractor for load it pulls. Surplus power, ample traction. A perfect field machine, power plant and road conveyance.

By reason of the patented NILSON HITCH in that the pull bar being fastened to the perpendicular ball over the rear axle, causes rear wheels to grip the ground in proportion to load or resistance, thus the heavier the load the greater the traction. This combined with ample power and a thoroughly tested all steel construction are exclusive NILSON features. Spring mounted throughout. Road speed 3 to 7 miles an hour, according to load and road.

NILSON SENIOR for four 14 inch plows.

NILSON JUNIOR for two and three 14 inch plows.

The Grip that Holds is the Reason They Are Sold.

See the Nilsons in Field Action at National Tractor Demonstrations. Send for descriptive catalog.

Nilson Farm Machine Co., Minneapolis, Minn.



FARMER'S SONS MAKE GOOD IN BUSINESS

Thousands of boys from the farm are receiving big salaries in all lines of business today as executives and managers. They are the men at the top of the business world. They started where you are today, with no experience, no better opportunity.

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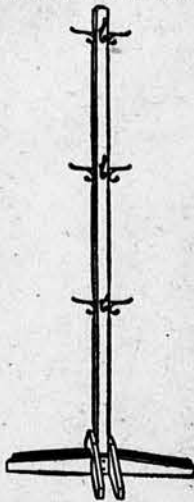
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Handy Things Made at Home

BY MRS. DORA L. THOMPSON,
Jefferson County.

Costumer is an unused name for a very useful article that many of our friends have made for themselves. Most



of these clothes hangers are about 5½ feet high, made of oak, the pillar part being cut 1¼ to 2 inches square. Harness hooks or ordinary clothes hooks are screwed in at even lengths up the pillar. One we saw had wooden pegs instead of hooks. Another had four small bars at the top with hinges and braces resembling the frame work of an umbrella. This type could be used for a clothes rack for freshly ironed clothes.

These clothes hangers may be bought for a dollar. Most of the ready made ones have hooks only at the top, but it is not a difficult matter to add to the number. We should like to suggest this useful hanger for the mothers who have several little children to dress and undress. We place our hanger beside our chair and can hang every child's garments on a separate hook and find them all together and in order in the morning. It is equally convenient for the night dresses. The housekeeper short of closet space finds the costumer a handy piece of furniture for the guest's room. It may, if occasion demands, save a hall tree from being overcrowded or even take the place of one.

Since we wrote a description of a concrete ice-box, a number of persons have called attention to their home-made ice chests and refrigerators. Most of these home-made articles were formed from boxes. One that we have noticed especially has an outside box 3 inches larger on each side and end than the inner box. The maker packed saw dust between the boxes as a non-conductor of heat. The lid of the outer box is double-walled and the space filled with sawdust. A small piece of gas pipe acts as a drain and is inserted near the ice. The outside box was covered over with several thicknesses of paper and a burlap cover was tacked over all. Aside from the work the cost of the whole chest was 60 cents. The owners say that 100 pounds of ice lasts as long and does as much service in this box as it does in any of their neighbors' high priced refrigerators.

A complete household equipment would include not only the ice box to keep things cold but also the fireless cooker to cook and to keep things warm. We have been much impressed with two or three experiments in the cooker line. One woman tried filling one section of her dead air space with dry paper pounded in tightly. The other section had soaked paper that had been run thru a food chopper pounded in as tightly as possible. The owner asserted the latter insulation was much the better of the two. Another experiment had soaked paper and steel wool used for comparison. The boxes in this cooker were both lined with sheet asbestos. The steel wool was found to be much better than the soaked paper, but it was too expensive for a cheaply made contrivance.

An Oklahoma bachelor had a new idea in making a cooker. He ground wet paper for a filler between boxes. As he wished to equal the better cookers that bake as well as boil, he made some disks of concrete, shaped by pouring the soft concrete into the lids of the pails he used for containers. These heated in the oven or on top of the stove retain enough heat to bake a pie. There is a United States bulletin that gives excellent suggestions for making fireless cookers. There are many women who have bought cookers and failed to use them. Mrs. Frederick in her book on Household Efficiency says that no tool is efficient unless the woman who uses it is efficient. Those owners of small one compartment cookers who send a hot vegetable in it to the field for the men's dinner; those who leave the Sunday dinner cooking while they go to

church; the teacher who prepares some warm dish ready for the pupils' noonday meal—these women are all using efficiently what should be a very efficient tool.

Save the Babies

Infantile paralysis, the dreaded scourge that is attacking so many babies in New York, may be carried by flies, chickens or human beings. The disease has appeared in Illinois and it is barely possible that it may spread farther West, especially since so many mothers are taking their babies away from the danger district.

While it does no good to become alarmed and worried needlessly, wise mothers will see that their babies are given especial care to keep them in perfect health as a strong child can resist disease much better than a weakly one. Keep the baby protected from flies and dust and banish pet dogs, chickens and cats from the house or porch. Dress the child comfortably but not too warmly. Medical authorities say that when a baby perspires it has on too many or too heavy clothes. Bathe the baby every day and see that he has plenty of restful sleep in the open air. Do not permit children or grown persons to kiss him on the mouth or to play with him or handle him enough to keep the child excited and nervous.

Above all else, watch the child's diet closely. A child less than 18 months old should never be given tastes of food at the table. The food should be milk, with soft cooked eggs, thoroughly cooked and strained cereals, and bread crusts given occasionally after the baby is a year old. Boil all bottles and milk utensils and protect them from flies by covering with clean cheesecloth while they are not in use.

This Dress Has Style

Any girl would look well in the pretty little frock shown here. It may be made of white or plain color material trimmed with a striped material that harmonizes.



The pattern, 7856, is cut in sizes 14, 16 and 18 years. It may be ordered from the Pattern Department of the Farmers Mail and Breeze, Topeka, Kan. Price 10 cents.

Set Colors Before Washing

Colored clothes must be washed with unusual care this summer since good fast dyes are no longer to be had. Wise women set the color of every garment before it is put into the tub the first time. For blue, dissolve ½ cup of vinegar and 1 tablespoon of powdered alum in a pail of water and let the garment soak in it for several hours. Soak lavender fabrics in water containing 1 tablespoon of sugar of lead. Use salt, 2 cups

to a pail of water, for setting blacks and reds or pinks.

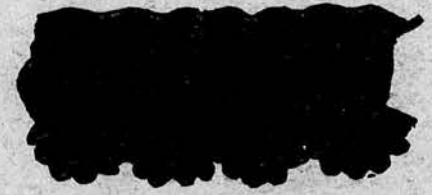
One woman who has unusual success in setting colors puts her garment into a medium sized dishpan of cold water to which 1 tablespoon each of salt, vinegar and turpentine has been added. The pan is then set on the stove and heated gradually until the water reaches the boiling point. She removes it quickly and washes the garment thoroughly in mild soap suds.

Strong soaps, hot water and bright sunshine are very bad for colored clothes. Use only the mildest soaps that contain no free alkali. When washing pink garments it is a good plan to put a little red ink into the rinse water instead of bluing.

A Crocheted Beading

The edging here shown has spaces thru which ribbon may be run and is excellent for finishing the tops of gowns or undergarments. Start with a chain (ch) of 18 stitches and make a double crochet (d c, thread over hook once) into the 6th st.

1st row—Ch 2, d c into same stitch into which the first d c was caught, ch



3, slip stitch (sl st) into 5th st from beginning of ch 12, ch 3, d c into 1st st of ch 12, ch 6, turn.

2nd row—D c over the ch 2 between doubles in the 1st row, ch 2, d c into same space, ch 6, d c into next ch 2 between doubles, ch 2, d c into same place, ch 6, turn.

3rd row—D c over ch 2 between doubles, ch 2, d c into same space, ch 3, join by a single crochet to center of ch 6, ch 3, d c over ch 2 between doubles, ch 2, d c into same space, ch 2, then 5 d c with ch 3 between them into the ch 6 between the 1st and second rows, ch 2, d c over last d c of 1st row, then turn and make 6 chains of 6 stitches caught into the spaces between doubles of the previous row, ch 3 and d c over ch 2 between doubles. Repeat from the beginning of the 2nd row. After making the 6th d c of every scallop, join by a single crochet to the preceding scallop before making the set of chains of 6.

The edge for sewing the lace on to the garment is made after the required length has been completed. It consists of 2 d c into every ch 6, with a chain of 7 between the groups of doubles.

Mrs. E. C. Derby.
Chautauqua Co., New York.

Wellesley Fudge Cake

One cup sugar, ½ cup butter, 3 eggs, 1 cup milk, 2½ cups flour, 1 heaping teaspoon baking powder sifted into the flour, ¼ cup chocolate, ½ cup English walnuts broken up coarsely. Cream the butter and sugar together, add the milk, then stir the flour in lightly. Add the chocolate, which has been dissolved by putting into a cup and setting in hot water. Add the nuts and lastly the eggs, which should be beaten whites and yolks separately.

For the frosting melt 1½ tablespoons of butter, add ½ cup of unsweetened powdered cocoa, 1¼ cups confectioner's sugar, a few grains of salt, and ¼ cup milk. Heat to boiling point and boil about 8 minutes, then remove from fire and beat until creamy. Add ½ teaspoon of vanilla and pour over the cake to a depth of ¼ inch.

Sending Flowers by Mail

Cut flowers may be sent long distances and arrive fresh at the end of the journey if they are packed in this way: Select flowers not yet full blown and cut them in the morning before the hot sun strikes them. Place them in a strong pasteboard box lined with several thicknesses of oiled paper. Take a lump of ice about as large as the two fists doubled together and wrap it well in cotton batting. Place this ice in the center of the flowers, cover with the oiled papers, close the box and wrap well with strong paper and heavy cord.

When ironing garments with sleeves, leave the sleeves turned wrong side out until the rest of the garment is ironed.

Mothers Must Be Teachers

Girls Should Learn Housework in the Summer Vacation

BY D. FREEBODY

VACATION should not be all play. A mother's best opportunity to teach her small daughters household duties comes in the long summer days when school books have been put away. Children enjoy their games all the more if part of every day must be spent in doing some form of work.

Too often we hear mothers say, "Oh, I'd like to have Bessie learn cooking and housekeeping, but by the time I stop to show her how things should be done it takes so long I'd rather just do it myself and have it over with." No wonder the task takes longer and little Bessie



Don't Make Vacation all Play.

loses interest if her mother stays beside her constantly and tells her every step.

There is a better way to go about it. Try, for instance, assigning one of the children the task of sweeping and dusting. Give her the necessary directions before she begins and then let her pretend she is the housekeeper. Don't interrupt and spoil the illusion by calling, "Oh, Bessie, come take the baby a moment," or "Bessie, run get mother the ironing wax." Don't give one child the same task all summer, either. She does not learn so much this way or find her work nearly so interesting as when the children take week about doing various things and each one feels the desire to have her task accomplished as well as the other little "housekeeper" did it.

Daughter Plays Hostess.

Let each small daughter have the opportunity of planning one meal every week—dinner or supper or Sunday morning breakfast. Have her plan the menu and see that the larder contains all the necessary supplies in advance. She may ask all the questions she wishes the day before, but the day she is hostess, mother must not turn her hand to help with that particular meal. Daughter sets the table, using the best china if she wishes, and decorates it with flowers from her little garden or in any other way she wishes.

At mealtime, daughter sits at mother's place, with her very best "grown lady" manner, and serves and does all the waiting on the table alone—looking out for time to refill father's coffee cup or see that little brother has a second helping of potatoes. Mother is company, so if baby stuffs her little mouth too full, it is Bessie who must suggest that she go a little more slowly. Let her plan to have something pleasant to talk to father and mother and the others about, also, for it is important that a hostess should be a good conversationalist.

It is great fun for each daughter in turn to make surprise desserts for Sunday or company dinners. She prepares it early and nobody is permitted to watch the process. No one but herself lays eyes on it until the final course when the dessert is brought in and served by the one who prepared it. Sometimes, in order to avoid dire consequences to a guest's digestion, it is necessary for mother to take a stealthy peep at the creation, or taste it. Praise of her own handiwork stimulates the little cook to greater efforts than many ordinary cooking lessons could do. But whatever the task you are teaching the children, whether making a pie, cleaning a room or cutting out a garment, remember this—give all needed directions, then let the child be "boss" and don't interrupt.

Let's Have Clean Pictures

The good man, the babies and I all attended the local picture show a few evenings ago. Four films were shown, the first depicting the solving of a mystery—neither very good nor very bad—and the fourth showing beautiful river

scenes and ruined castles in picturesque Spain. But in between these films were two others that made me thankful my little ones were too young to be harmed by them and gave me a thrill of apprehension for the time when their young minds will be open to such influences. One was a comedy, so silly and coarse as to be absolutely nauseating, and the other, a so-called tragedy having for its subject matter a mother who agreed to sell her young daughter's honor as payment for an enormous debt incurred by her own extravagance. Such a story, if handled with dignity and delicacy, might have taught a good lesson, but as it was, the whole matter was turned into a degrading, ridiculous farce.

In contrast to this program, I recall one I had the privilege of seeing last winter, when for more than 2 hours we sat entranced with scenes of beautiful California and the exposition, journeyed thru the Panama canal and visited quaint old Holland and smiled with her little children, and took a railroad ride thru the snow-covered mountains of Switzerland. There was fun, too, until our sides ached from laughing, but clean, sweet fun, and the "hit" of the evening was a film showing the pranks of a dear little year-old baby.

We can scarcely estimate the value of an evening like this to our boys and girls for pictures impressed upon the mind are not forgotten soon, but unfortunately the same is true of the bad, and when we mothers think of the influence of a coarse program such as the first, the "movie problem" looms up rather seriously. The editor of a popular woman's magazine is authority for the assertion that when a prominent film producing company asked the exhibitors what style of films they preferred—clean ones or "off-color" ones—a large per cent answered they must have the off-color pictures in order to make a living. Some actually showed their books proving that the average daily receipts on coarse, vulgar films were more than twice as great as from those purchased of a company with a reputation for clean pictures.

If this is true, what a reflection on American tastes and morals! I believe, however, that the exhibitors are mistaken and that if they would advertise clean films, then show clean films and nothing but clean ones, they would not have to complain of lack of patronage. There seems little that we farm women can do, yet by keeping our eyes open, we surely can find ways to add our mite to the purifying of motion pictures. They are here, good or bad, and they are here to stay, and if we wish them to benefit our boys and girls instead of harming them, it is up to us to devise a way to convince exhibitors that we desire clean films.

Mrs. H. R. Fitzpatrick.
Cowley Co., Kansas.

In Country Lanes

O country lanes, white-starred with bloom,
Where wild things nestle, shy and sweet,
Where all your waving grasses laugh
And part before my eager feet—

Could I forever dwell with you,
Letting the mad old world rush by,
And just be glad of wind and sun,
Of rocking nest and brooding sky!

How often, in the crowded streets,
I dream of you, sweet country lane,
And feel once more your soft breeze soothe
My aching breast and weary brain.

Ever above the city's din,
Above the clink of yellow gold,
I hear a wild bird's ringing call,
I catch the scent of leaf-strewn mold.

Your grasses kiss my fevered cheek,
Your hawthorn drops her scented rain,
I am a child again, and dream
That heaven hides here, O flower-starred lane!

—The Criterion.

In Your Shoes All Day

Out in this hot, sweltering weather, tramping over the farm from morn to night—that's the kind of wear that's hard on socks. That's why the ordinary socks you buy go to pieces quickly and make your feet sore and blistered. Wear Durable Durham Hosiery, and when you kick off your shoes at night, you'll find it holeless and your feet comfortable.

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is made strongest where the wear is hardest. It has reinforced heels, soles, toes, and the tops are fastened on for keeps. The famous Durham dyes assure fast, sanitary color. With all these superiorities, Durable Durham Hosiery costs only 10, 15 and 25 cents.

Tell the wife about this hosiery that will save her hours and hours of darning work. Tell her to buy Durable Durham, the hosiery that makes home knitting expensive, for everybody in the family.

Your dealer should have Durable Durham Hosiery in stock. Have him show it to you and also the 25-cent Durham Mercerized Hose.

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All This for a Penny

Few persons are aware of the amazing number of things that can be done with electricity. Fewer have any idea of the cost of these operations. The statements given here, which were first published in Harper's Weekly, are unusually interesting:

On the average rate and discounts of the ordinary consumer, a cent's worth of electricity will operate a 12-inch fan for 90 minutes.

Will operate a sewing machine motor for 3 hours.

Will keep a 6-pound electric flatiron hot for 15 minutes.

Will make four cups of coffee in an electric coffee percolator.

Will keep an 8-inch disk stove hot for 7 minutes, or long enough to cook a steak.

Will operate a luminous radiator for 8 minutes.

Will bring to a boil 2 quarts of water or operate the baby milk warmer twice.

Will make a Welsh rarebit in an electric chafing-dish.

Will operate a 7-inch frying pan for 12 minutes.

Will keep a heating pad hot for 2 hours.

Will operate an electric griddle for 8 minutes.

Will run the electric broiler for 6 minutes.

Will run a massage machine for nearly 4 hours.

Will keep the dentist's electric hammer and drill going for 90 minutes.

Will keep the foot warmer hot for a quarter of an hour.

Will run an electric pianola for 1 hour.

Will vulcanize a patch on an automobile tire.

Will heat an electric curling iron once a day for two weeks.

Will pump 250 gallons of water 100 feet high.

Will keep a big glue pot hot for an hour.

Will drive the electric clipper while shearing one horse.

Will raise 10 tons 12 feet high with an electric crane in less than a minute.

Will raise a large passenger elevator five stories a minute.

Will brand electrically 150 hams.

Instead of a Closet

Our bedroom is without a closet so we made a simple wardrobe that does very well. It required two 12-inch boards 5½ feet long, two 12-inch boards 7 feet long and one board 8 inches wide and 5½ feet long. The 7-foot boards were used for the sides. One of the 5½-foot boards made the top and the other was used for a shelf 1½ feet from the top. The 6-inch board was nailed about half way between the shelf and the bottom for a support. Hooks were fastened to the under side of the shelf and the boards painted to match the woodwork of the room. A curtain was tacked across the front and we expect to tack denim or some other strong material firmly across the back to keep the dust from the clothes.

Rooks Co., Kansas.

The Prize Winners

Alice Rector won first prize in the wild flower letter contest; Daisy Barton, second prize; and Dorothy Dean, Bertha Earley, Vida Brundridge and Inez Schmoee, the next four prizes.

Be sure to mail your collection in time so it will reach us by August 1. Send it in a box or wrap pasteboard around it and mail it in an envelope or package. Write your name and address plainly on the package and if you wish your flowers returned after we are thru with them place postage inside the package, and we will see that you get them back.

The Swing

How do you like to go up in a swing,
Up in the air so blue?
Oh, I do think it the pleasantest thing
Ever a child can do!

Up in the air and over the wall,
Till I can see so wide,
Rivers and trees and cattle and all
Over the countryside—

Till I look down on the garden green,
Down on the roof so brown—
Up in the air I go flying again,
Up in the air and down!

—Robert Louis Stevenson.

Clean graters with a whisk broom or a small scrub brush instead of a dish cloth.

Let's Talk about Flowers

The Boys and Girls Have Found Many New Blossoms and Their Collections are Growing Larger and Larger

THE KANSAS Beauty is one of the pretty wild flowers in my collection. It is found only in Kansas. It has a little red bloom with a white and pink center and its leaves are small. The roots are shaped like a radish and are called Indian bread. The morning-bride is found mostly in gardens or along roadsides. Its erect stems stand 6 inches to 1 foot high and it has small white flowers with black and yellow centers. It is called morning-bride because it is the most beautiful early in the morning. It closes when the sun comes out and the dew disappears. The farmers do not like the sunflower as it grows in the corn fields and takes up all the food from the ground but we boys and girls think as much of the state flower of Kansas as we do of any other. The dandelion grows mostly in ditches, along creek banks and in pastures. The blossoms stay pretty and fresh from two to six days and after that little white fuzzy balls take their place.

Esbon, Kan.

This is a Good Report.

My brother, my three sisters and myself have collected 55 specimens of wild flowers in one week and we found all except three of them on our own farm. We have buttercups, daisies, dandelions, and other common flowers.

One very pretty flower, the name of which we do not know, is very common in this country. It grows on a stem 6 to 12 inches high and five or six stems are usually found in a group. The flowers which range from white to pink and deep red, grow in clusters. The leaves are very small and thick and cling closely to the stem.

Geneseo, Kan.

Woodland Blossoms.

Most of our wild flowers grow by the roadside and in the woods. The woods were blue with violets in the spring, and now they are white with elder and dogwood bushes. I have gathered white and purple larkspurs, phlox, daisies, honeysuckle, Sweet Williams, prairie peas and many other flowers the names of which I do not know.

Centralia, Kan. Frances Cain.

The Wild Rose is Pretty.

The wild rose is one of the most beautiful of the wild flowers. It grows along the roadsides, in pastures and any place where there is plenty of moisture. When the rose first blooms it is a deep pink but when it is 2 or 3 days old it begins to fade. The center is a light pink. There is a small red ball about as large as a marble that appears when the blossom is gone and the seeds are inside this ball. These seeds often scatter three-quarters of a mile.

Princeton, Kan. Dorothy Dean.

Do You Watch for Flowers?

I have several kinds of wild flowers pressed. I did not know there were so many flowers until I began to watch for them. I have wild roses, buttercups, honeysuckle, wild lilies and many other specimens and I hope to gather many more.

Beaumont, Kan. Daisy Hammer.

Western Kansas Varieties.

I live in Western Kansas and there are not many wild flowers here but those we have are very pretty. I think the Yucca lily is the most beautiful of all. It has narrow, spear-like light green leaves, all growing from the same spot at the bottom of a 4-foot stalk. The flowers are creamy white and shaped like bells. The Indian blanket grows in very dry soil. Some of them

are yellow, some red and some mixed. The center is fuzzy and about the size of a penny. There are about 12 petals in each blossom. They grow on a stem about 6 inches high and the leaves are dark green. My collection of pressed flowers is getting quite large. My two brothers are helping me with it.

Bertha Earley.
Hill City, Kan.

Three Favorites.

I am getting along nicely with my collection of wild flowers. I think the wild cactus blossom is very pretty because it is so bright and seems like a bit of sunshine. The bloom which has 17 petals is a creamy satiny color with orange tips where it joins the ovary. This flower grows in dry, rocky soil on hillsides. It is not fragrant. The buttercup is another favorite. It grows in pastures and meadows and around bushes where there is grass. It usually grows in bunches and is tall enough to be seen above the grass. It has several purplish white or yellow cup-like blossoms on one stem which are very fragrant. There is a little flower which grows in the corn fields called Black-Eyed Susan. It has a very dark center and its petals are white tinged with pink. It grows about 8 inches high.

Roper, Kan. Daisy Barton.

This Boy is a Hustler.

I am a boy 9 years old. I have 30 kinds of flowers in my collection and a good many of them are new to me. Some of them are so small I can scarcely see them when they are pressed. I am watching for several more new flowers for my collection.

Perry, Okla.

From an Arkansas Girl.

I live in hilly Arkansas and altho I have lived in Kansas and Oklahoma, I have never seen as pretty wild flowers anywhere as we have here. The glades are beautiful early in the spring with wild pansies. The upper petals of the pansies are a soft velvety purple and the three lower petals are a delicate blue. The leaves look something like a violet leaf. I have found another wild flower growing in the woods that looks like a pink. Its petals are scarlet and it grows on a tall stem. The wild honeysuckle is found on the hillsides and in crevices in rocks. The leaves and blossoms resemble the tame honeysuckle except that the blossoms are larger and are a bright pink color. They are very fragrant and the odor is carried on the breeze for a long distance.

Wild Cherry, Ark. Inez Schmoee.

Sweet Williams Bloom Early.

Sweet Williams grow in the timber where it is damp or along the roadside where there are grass or weeds. The blossoms are light blue and there are several little branches of green leaves on the stem. It blooms in April and May. I have pressed many pretty flowers.

Havensville, Kan. Garnet Flowers.

Beulah Likes Flowers.

I like flowers and am pressing many varieties. The wild verbena grows along the roads and in the meadows where there is plenty of rain. The pink and purple blossoms are in little clusters. I like violets best of all wild flowers.

Fulton, Kan. Beulah Dorsey.

Are These in Your Collection?

Snake grass looks like grass and has a blue and pink blossom. The wild sweet potato is similar to the morning-glory but its blossom is white and larger. Wild moss has a red blossom. Its vines trail on the ground and its large leaves are dark green. The nigger-head grows on long stems. It has yellow petals with a large black center and

there are many stickers in the center. I have several specimens of wild flowers in my collection. Vida Brundridge.
Newton, Kan.

The Gorgeous Goldenrod.

The goldenrod is the most gorgeous of all the wild flowers in my collection. It appears along waysides and its golden feathery sprays of bloom may be seen in prairies and meadows everywhere. It grows from 1 to 3 feet high and has long, slender green leaves. It blooms from August to November and the goldfinch and sparrow eat the seeds when other food is scarce.

Erie, Kan. Glenda Myers.

Oklahoma Wild Flowers.

There are many kinds of wild flowers in Oklahoma. The daisies are numerous around the prairies. There are white and blue daisies with yellow centers. Each blossom has many small petals but there are only a few leaves on the stem. Daisies open when the sun comes out and close when the sun sets. My collection of wild flowers is growing rapidly.

Letitia, Okla. Josie Borovicka.

The Snake-Flower is Blue.

One of the pretty flowers in my collection is the snake-flower. It has a white root which goes straight down into the ground. The stem is sticky inside and the leaves are small and sharp pointed. The three-petaled blossoms are blue with blue and yellow stamens.

Palco, Kan. Eva Carrier.

Violets are Favorites.

The violet blooms early in the spring. It has small, pointed leaves and the blossom is a beautiful blue with a tiny yellow center. It grows best in damp places, in meadows and along creek banks. The buffalo apple has a pretty pink flower which withers in a few days and then a little red apple appears in its place. The Lady's Slipper is a pretty grayish yellow flower which grows in damp places. The leaves are small and velvety and the stem is brownish green. I have pressed a large number of flowers.

Aurora, Kan. B. O'Reilly.

The Trumpet Vine.

One of the prettiest of my wild flowers is the trumpet vine. Its orange-colored blossom is shaped like a horn with five scallops on the edge and it has four stamens. The morning glory grows in fields and along roadsides. It is a great climber and is white, pink and light blue in color.

Roper, Kan. Wesley Barton.

Look for These, Too.

Among the flowers in my collection is the thistle flower. It has five petals and some of the blossoms are blue and some yellow. The petals are star-shaped. The sheep sorrel is a small yellow flower with four petals which grows by the roadside and in pastures. The gourd flower grows any place and it always has its face turned toward the sun.

Jet, Okla. May Williams.

Found on Every Farm.

The yellow-eyed sunflower is one of the pretty blossoms I have gathered for my collection. It has a large number of white petals and a yellow center. It is found on hillsides. The white single rose is a large flower about as big around as a cup. It grows near streams. Johnny-jump-ups are the first flowers found in the spring. They are purple and light blue and look very much like small violets.

Woodbine, Kan. Hazel Fasse.

Eloise is Doing Well.

Our house is on a high hill and I can count as many as 12 kinds of wild flowers from our door at any time from spring until frost. I have pressed about 30 varieties of flowers and among them are the spiderwort, sunflower, grass-flower, wild rose, wild portulaca, sensitive rose, purple and yellow thimble, wild poppy and several varieties of cactus.

Lewis, Kan. Eloise McCune.

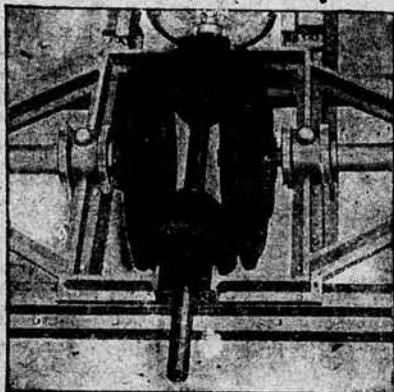
What is Its Name?

I found a little flower which I do not think is very common and I do not know its name. The leaves look like moss and the blossom is small and old rose in color. I am trying to win the prize on my collection of wild flowers.

Linwood, Kan. Ruth Beckey.

TEN Advantages Gained By This Great Improvement in Tractors

Patented Direct-Drive Double
Cone Transmission



Read What This Nebraska Farmer Says About the Albaugh-Dover Tractor

Gentlemen:

I went to all the Tractor shows I could for two seasons. Then I went to several factories to see their machines made, and I finally selected your machine because, first it is the BEST BUILT machine in its class. Second, it has the drive wheels in front and puts the pull where the pull ought to be to lift itself over the soft dirt instead of pushing itself in as most of the others do. Your patent transmission gives it a range of work that no other tractor has at this time. It is accessible and simple and has a great many less parts than most other machines.

The tools are in the front and below the operator all the time where he can watch their work and a touch with the foot raises or lowers them to or from their work. This tractor works equally well forward or backward and trash or other obstructions can be readily removed or passed over in a jiffy while most others have their tools trailing behind and it is no small trouble to clear them of trash, and you can hardly back up at all while hitched to these tools. This machine will work close up in the corners of fenced fields and can turn a square corner in less than 5 seconds and be gone at its work while most others can't turn a square corner in their life time.

ROSS F. JOHNSON, Neligh, Nebraska

You will see it at the shows—the most radical and successful improvement in the whole tractor industry—the Direct-Drive Double Cone Transmission. It revolutionizes tractor handling.

It enables you to apply the full power of your engine to either **one or both wheels forward or backward** or you can drive **one wheel forward with the other idle** or you can drive **one wheel forward and the other backward** both at the same time. It gives you absolute control of the machine without bothering with a clutch or shifting a single gear.

It saves more than an hour a day in turning corners alone—enables you to plow at least an acre more per day—cuts down the working cost per acre—allows you to go almost anywhere you can drive a team—will pull 3 plows under all reasonable conditions—on hills and in soft wet places—will work on side hills too steep for a binder without danger of tipping over. Surely you can't afford to buy any tractor until you have investigated this great improvement.

ALBAUGH-DOVER 15-25 "SQUARE TURN" TRACTOR

Is the only farm tractor having the Direct-Drive Double-Cone Transmission which gives these ten valuable time and money saving features:

- 1 Works close up to fence corners.
- 2 Turns a square corner in the field with 3 plows in 5 seconds.
- 3 Travels faster and handles quicker and easier.
- 4 Does away with both bothersome clutch and differential.
- 5 Requires fewer parts—all more accessible.
- 6 Gives a much wider range of work.
- 7 Has more engine power available for actual service.
- 8 Reduces repair costs.
- 9 Makes this a Two-way Tractor carrying tools either below and in front of operator with drive wheels ahead or can be run with castor wheel ahead and tools trailed behind.
- 10 Backs quickly and easily with tools attached making it easy to remove trash and other obstacles.

The Albaugh-Dover Tractor operates with either kerosene or gasoline. Has power lift for plows, cultivators, cutter bars, harrows, discs, graders, etc. Has high duty four cylinder Waukesha Motor, latest and best high tension Dixie Magneto and Bennett Tractor carburetor. Has closed dust proof radiator with specially housed fan, heavy all steel 5-inch channel and I-beam frame re-inforced with heavy cast axle housing—large 24 spoke drive wheels 62" in diameter with 12-inch face. Extra spade and spike lugs furnished as part of regular equipment. 34" road clearance. Has high duty bronze transmission bearings and best ball bearings. Every part easy to get at and all bearings run in a bath of oil or grease. Develops a speed of 2 to 3 miles per hour in the field and 4 to 5 miles on the road. Has special floating hitch for plows insuring surprising flexibility in handling. Castor wheel is adjustable to follow either one of drive wheels—a great advantage in row cultivation as it is only necessary to watch wheels in front of driver. Is manufactured and backed by an old established manufacturing concern with a fully paid capital of \$1,500,000 and whose product is already in satisfactory use on more than 70,000 American farms.

Go to one of the National Farm Power Demonstrations if possible and see the Albaugh-Dover "Square Turn" Tractor at work. See for yourself the advantages we claim. If you are interested in tractors fill out coupon below or write for our Free Catalog Folder. Sending for same will place you under no obligation whatever.

ALBAUGH-DOVER CO., 3009 W. 21st St.
CHICAGO

Factories: Chicago and Norfolk, Neb.

Manufacturers of Farm Tractors and Famous
New Butterfly Cream Separators

PRICE \$**1285**
F. O. B. Factory
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Albaugh
Dover Co.,
3009 W. 21st St.
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gation on my part
please mail me your
catalog folder and infor-
mation about The Albaugh-
Dover Square Turn Tractor.

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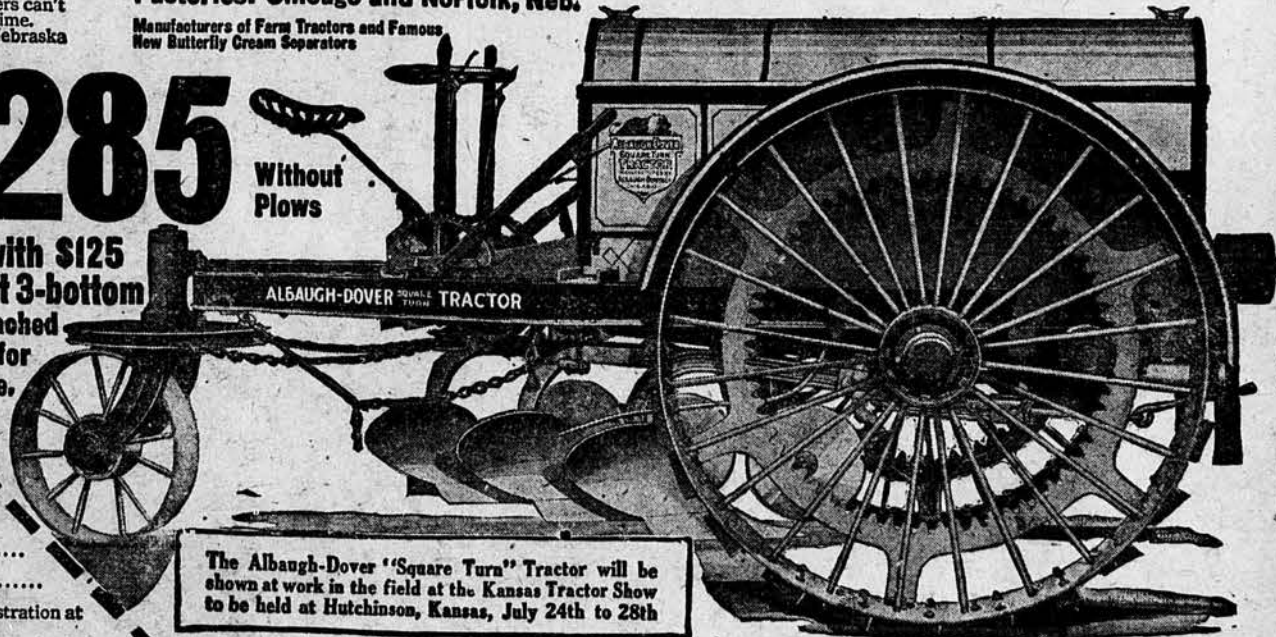
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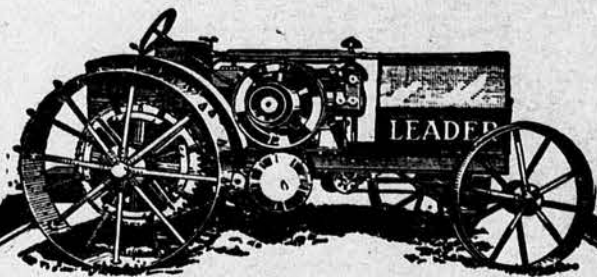
I expect to attend the Tractor Demonstration at

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Or \$1385 with \$125
Power Lift 3-bottom
Gang attached
ready for
use.



The Albaugh-Dover "Square Turn" Tractor will be shown at work in the field at the Kansas Tractor Show to be held at Hutchinson, Kansas, July 24th to 28th



LEADER "LEADS"

A "lead" is advance information which is to be followed up and verified. When you, Mr. Farmer, go to the Tractor Show at Hutchinson, we want you to "follow-up" some "leads" that we supply here and any others that may occur to you.

Lead No. 1—Go over Engine; note its rugged construction, examine the double lubricating system, forced circulating water system, high-tension ignition, etc.

Lead No. 2—Double direct line drive to rear wheels, giving big draw-bar pull (3000 lbs.). Spring buffer to save stripping gears and

breakages, steel gears running in oil, dust and dirt proof, instead of cast iron. Instant speed changes.

Lead No. 3—Cost of operation, repairs, service stations, correct size, guarantee, etc.

It's Good Looking—Find Out Why It's Good Acting—Ask the Leader man why he says a

LEADER IS 100% EFFICIENT

Have him tell you what the Leader has done in Field Competition to uphold its name and reputation.

DIG DOWN DEEP INTO THE LEADER before you buy. Find out how we sell Leaders—On Performance. Ask the dealer why a Leader will do the work of 12 horses at the same cost per horse-power hour.

Get the Facts—That's what this show is for. Get the Leader Book. It's a Book of Leader Facts.

Peru Van Zandt Implement Co., of Wichita and Hutchinson, Leader Distributors for Kansas, and Adams, Dickinson & Burrows, of Kansas City, Missouri, will be on the grounds with Leader machines.

Both carry a full line of repairs and employ a corps of efficient workmen so that they can give real service to users of Leader Tractors in that territory in event such service should be needed.

Dayton-Dick Co., 119 York St., Quincy, Ill.

SEE OUR NEW One-Man Small Tractor Also the Famous

Kerosene-Burning Oil Pull

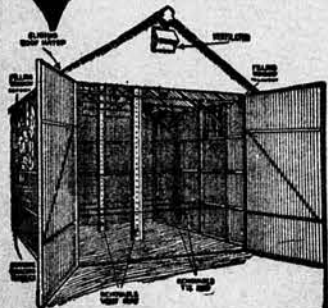
At the TRACTOR DEMONSTRATION

Hutchinson, Kansas, July 24, 25, 26, 27, 28

ADVANCE-RUMELY

Get 10c to 30c More Per Bushel

THE habit of selling your grain as soon as harvested costs you 10c to 30c a bushel. Store it and sell when the market is up. Store it in a



STEFCO Steel Grain House

The extra profit on one year's crop will more than pay for Stefcos. When not in use as a grain house it can be used as a garage, implement house, wagon shed and for other purposes. Heavy steel frame rigidly braced, corrugated, galvanized sheet steel sides. Easily erected in half day—bolts together, no riveting. Standard size—10 feet wide, 15 feet long, 8 feet to eaves, capacity 1000 bushels. Additional 5-foot sections may be had to make any length house desired. Fire-proof, vermin-proof, wind-proof, water-proof.

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Steel Fabricating Company Chicago Heights, Illinois



The Old Reliable Bovee Furnaces

At Manufacturer's Prices

THE BOVEE HORIZONTAL FURNACES THE BOVEE UPRIGHT FURNACES

We also manufacture a full line of BOVEE PIPE-LESS FURNACES. We offer the very best High Grade furnace sold with any style of piping and sell at a price that will save a large per cent of cost. Write us for Catalogue and special prices. Send pencil sketch of floor plan of your building for a free detail plan of your heating plant.

Bovee Furnace Works, 188 8th St., Waterloo, Iowa



Protect Chicks from Lice

Worms Also May Cause Trouble in the Summer

BY H. L. KEMPSTER

IF FOR NO apparent reason there is a lack of thrift among your young chicks, perhaps the cause is lice, or worms in the intestines. Examine the chicks about the head for head lice. Lice are more likely to be present on hen-raised chicks. If lice are found, grease the heads of the chicks with lard which is free from salt. Do not use lard and sulphur. Apply the lard with the finger, rubbing the head, neck, under the wings, and around the vent. The brooding hen also should be treated. One of the best methods of exterminating lice on the mature fowls is to rub a piece of blue ointment, the size of a pea, into the skin just beneath the vent, and also under each wing. Do not daub it on, but rub it well into the skin, as blue ointment is very poisonous and will kill the hen if she gets some of it into her mouth.

If no lice are found, carefully examine the intestines of a dead chick for intestinal parasites, such as tapeworms or round worms. If worms of any kind are found, the chicks should be treated and removed to fresh ground where there are no worms in the soil. As long as the chicks remain on the old runs the danger of contamination always is present.

To treat for intestinal parasites feed should be withheld for 12 hours, and one of the following remedies given:

Powdered areca nut 30 to 45 grains for an adult bird, 15 grains for immature chicks.

This can be mixed in a wet mash and fed so that each gets an equal amount. It can be fed to older birds in capsules which can be forced down the gullet.

Turpentine, 1 to 3 teaspoonfuls, depending upon the age of the bird, also is effective. It can be made less severe by mixing with an equal amount of cottonseed oil, but if ineffective should be used full strength. The best method of giving turpentine is by forcing it thru a small flexible catheter that has been oiled and is passed thru the throat into the crop.

Good results have been reported also with the use of tobacco dust, using 5 to 10 grains to a bird. This can be fed in a wet mash.

The droppings containing the worms should be burned or buried deeply to prevent the chickens from picking them up.

Get Rid of the Gape Worms

Can you tell me a cure for the gapes? My chickens have them. I have found no cure for them.

MRS. J. W. S.

The most desirable method of combating any disease is to adopt and persist in some reliable means of prevention. There is a cause for all ailments. Gapes are caused by small red worms and their progeny. The most satisfactory treatment is prevention of the contagion, combined with extraction of the worms from the infected chicks. All sick birds should be removed to quarters apart from the well ones. All coops and runs where infected birds have been should be disinfected thoroughly. The coops should have a thorax application of hot white-wash. The ground or runs should be well limed with air-slacked lime, spaded up, and should be sprinkled with a 2 per cent solution of sulphuric acid in water, or 2 ounces of copperas dissolved in a bucket of water, or a solution of permanganate of potassium in water, 1/2 ounce of the crystals in a barrel of water, or a strong solution of creolin, 2 table-spoonsful in each gallon of water. The ground should be well sprinkled with one of these solutions after the infected birds have been removed, then plow or spade and sprinkle again. Repeat this disinfection whenever infected chickens have been running on the ground. Scald all drinking vessels used by sick birds and be sure that the water used is boiling. If there are many earthworms and slugs in the ground which has been occupied by chicks with gapes, get rid of the worms with one of the patented worm exterminators sold by nearly all seedmen. Always burn all chicks which die of the gapes, and whenever you find gapeworms, or extract them from sick chicks, be sure to burn the worms. Disinfect all droppings. Earthworms do not cause gapes, but may become contaminated with the eggs or embryonic

gapeworms, and so become a source of infection in ground where the disease has existed. If you have coops in which you can confine your chickens each morning until after the sun has driven the dew from the grass and has forced the earth worms back into the soil, you often can avoid the gapeworm in that way. We know of some farmers who keep their chicks confined to coops every morning until 10 o'clock.

T. E. Quisenberry.

Care for Breeding Ducks

Breeding ducks, if not kept for the production of market eggs, should have a grass range if possible after the hatching season is over. They should be fed sparingly on a mash of 1 part by weight, cornmeal, 2 parts bran, 1 part low-grade wheat flour, 1 part green feed, 8 per cent beef scrap, and 3 per cent grit, given once or twice daily, with one feed of mixed grains. The mash may be made of 3 parts, by measure, cornmeal, 4 parts bran, 2 parts low-grade wheat flour, 1/4 of a part beef scrap, and 2 parts of green feed, with small amount of grit and shell or mineral matter. Feed Pekin ducks for eggs beginning about December 1, on 1 pound of cornmeal, 1 pound of low-grade flour or middlings, 1 pound of bran, 15 per cent of beef scrap, 15 per cent of vegetables or green feed, and some grit. Feed this mash twice daily, in the morning and at night, and also give 1 quart of mixed corn and wheat to every 30 ducks at noon, when they are laying heavily. These laying rations should be fed thruout the year to Runners or to any breed of ducks kept principally for the production of market eggs. If the Runner ducks are not laying they should be fed sparingly. All rations are by weight unless otherwise stated. Thirty laying Pekin ducks will eat about 10 quarts of moist mash at a meal.

Cut alfalfa, clover, rye, oats, and corn are used as soiling crops or green feed for ducks and ducklings, and are mixed in the mash. Ducklings and ducks usually are fed mash on flat feed boards rather than in troughs. The drinking water should be near the feed, so that the ducks can eat and drink at about the same time. Water fountains for ducks should be deep enough to allow them to get their bills into the water to wash sand or grit out of their nostrils.

The cost of feeding breeding Pekin ducks, according to reports from several growers, is from \$1.75 to \$2.25 a duck, averaging about \$2. Wet or moist mashes are used almost exclusively, but as they are more forcing than whole grains it might be advisable, in case many of the eggs are infertile, to feed more whole or cracked grains and less mash to ducks during the breeding season.

Determining Sex of Chicks

Ability to determine sex is particularly valuable to persons who make a business of selling day old chicks and to those who desire to raise the pullets only. It is impossible for Kansas poultry raisers to do this, however except in the case of a few of the varieties in which there is a difference of color marking between the sexes as in the Barred Plymouth Rocks and Silver Wyandottes. In China where one family follows the same occupation generation after generation, the poultry raisers have developed their sense of touch so highly that they can determine the sex of chicks quite accurately. Even with a Chinaman to tutor him, it is not probable that any American, with the possible exception of some of the students of the blind institutions, can become proficient in this art, and consequently the American must depend on sex characteristics and color markings.

In all varieties of poultry, the male chicks have a sturdier appearance, a wider comb space, and heavier legs and beak. These characters alone often are misleading but coupled with color markings, they make a good working basis.

W. A. Lippincott.

Kansas State Agricultural College.

It is a good paper and I must have it if possible. Wish you success.—A. E. Stanfeld, Odessa, Mo.

Milk Requires Constant Care

It Should be Kept Clean and Cold, and at All Times Must be Protected from Flies and Dust

MILK IS a highly perishable food and the length of time it will remain sweet depends almost entirely upon the constant care it receives from cow to consumer. Milk passes thru three agencies, the producer, the dealer, and the consumer. If the first two have done their part, clean, safe milk will be delivered to the consumer. The consumer's responsibility begins the moment the milk is delivered at his doorstep.

Because milk poured from vessel to vessel on the street may be contaminated from dust, manure particles and germs, milk should be delivered in capped bottles. If bottled milk cannot be obtained, the housewife should try to have someone in the family receive the milk in a clean, scalded utensil, cover it instantly, and put it without delay into the refrigerator, or the coldest available place. Under no circumstance should an uncovered pitcher, bowl or pan be left out on the porch to receive milk. The vessel, both before and after the milk is poured into it, is accessible to flies and collects particles of dust and dirt.

Even in the case of bottled milk, the consumer must see that the bottle is not left out in the heat for a moment longer than is necessary. Milk should be delivered and kept at a temperature of 50 degrees or lower—the colder the better. At such temperatures bacteria develops very slowly and milk undergoes little change until consumed. A slight rise in temperature above this point however, permits bacteria to multiply rapidly and brings about rapid deterioration of the milk, which may render it unfit for ordinary use and make it dangerous for babies and little children.

In handling milk around the home, do not pour it from one vessel to another until it is to be consumed. Do not let a bottle of milk remain out of the refrigerator a moment longer than is necessary. Keep the milk covered, using paper caps or an inverted tumbler on bottles, or storing it in covered utensils. Any household utensil that is to be used as a vessel for keeping milk first should be cleaned thoroughly and scalded.

Before opening a bottle of milk, wash and wipe the neck and outside of the cap with water and a clean cloth. The little depression on the top of the cap may collect dust or water and any milk that leaks out may attract flies. Lift out the cap with a pointed instrument, so that the outside of the cap, which may be contaminated, will not be pushed down into the milk. Each time the milk is to be poured from the bottle it is a wise precaution to wash the neck as described.

The refrigerator where milk is stored should be cleaned regularly, especial care being given to keeping the drip pipe free and clean. The ice rack also should be cleaned and any place where food is kept or milk stored should be scalded occasionally with sal-soda solution. The refrigerator, even though cold, may quickly be contaminated by a few drops of spilled milk, or by small particles of food. No matter how clean the refrigerator, milk never should be kept in an open vessel. Milk absorbs odors easily. Such food as fish, cabbage, or onions should not be kept in proximity to it.

As soon as a milk bottle is emptied, rinse it thoroughly with cold water. Do not return dirty bottles and do not use milk bottles except to hold milk. Returning dirty bottles to the milkman may mean that a few days later either you or your neighbors will get contaminated milk. Milk bottles never should be taken into a sick room. In case of infectious or contagious disease, all bottles should be boiled and should not be returned to the dealer without the permission of the attending physician. Such diseases easily can be made epidemic thru disregard of this precaution.

Care of milk, important for all, is a vital necessity in a home where there are children. It is absolutely essential to the safety of babies. Mothers of small children should get, from their own

physicians, explicit directions for the proper handling of milk and for cleaning and sterilizing nursing bottles. Pamphlets on infant feeding may be obtained from the municipal milk stations or health officers. Milk for babies cannot be kept too cold, and too much care cannot be given to keeping it clean and covered.

Cows in the \$1,000 Class

One thousand dollars a year income from a dairy cow. That is the high standard set in the herd of registered Guernsey cows owned by W. W. Marsh, Waterloo, Ia. Forty-two cows give between 8,000 and 17,000 pounds of milk a cow a year.



At the head of this herd is the Guernsey cow, Dairymaid, of Pinehurst, with a record of 17,285 pounds of milk and 910.67 pounds of butterfat or 1,200 pounds of butter a year. Of 20 cows none averages less than 534.53 pounds of butterfat a year, 10 average more than 650 pounds a cow, three more than 774 pounds and two more than 860 pounds. A list of these fine Guernseys reads like a roll of champions. Under sanitary conditions, well within the attainment of the average dairyman, this herd is helping to make dairy history and, of course, return profits for the work and care given every detail.

As to the efficient handling of milk and the condition of surroundings of the herd it is interesting to note that the last test made by the Iowa State College of Agriculture, showed that the bacteria content in the milk was just 23. The butterfat content was more than 5 per cent. Guernsey milk from this herd commands a premium in Waterloo, selling at 11 cents a quart. Cream sells for 50 cents a quart.

At 3 years old Dairymaid made her first notable record of 14,562 pounds of milk and 860.26 pounds of butterfat a year. She is now 8 years old and is expected to surpass her previous high record. To show the potency of her blood the record of her son, Pride of Iowa, is quoted. Fifteen calves sired by him have shown remarkable high yielding milk strain. The first heifer to finish the test made 632 pounds of butterfat a year and three more averaged more than 500 pounds of butterfat a year at the time of their first calves. A daughter, Dairymaid of Iowa, at 2 years old, produced 460 pounds of butterfat. Another daughter calved four months ago and has averaged 60 pounds of butterfat a month. Lady Dairymaid of Pinehurst at the age of 4 years made a record of 770 pounds of butterfat a year.

To Spend 3/4 Million Dollars

A fund of \$50,000 has been subscribed by men prominent in the dairy industry for the preliminary work of a big national advertising campaign to increase the production and consumption of milk, butter, buttermilk, cheese and ice cream.

It is proposed to raise a fund of at least \$750,000 to cover a complete campaign of three years and to expend in advertising, general publicity and organization work approximately \$20,000 a month for 36 months.

The godfathers of this extensive, powerful and beneficial project are enthusiastic in their belief that this step means the full realization of the object of the National Dairy Council, now counting 280,000 members, "to advance the cause of dairying in America."

All now depends upon the support given the execution of this plan by the individual members of the industry. And the broad-gauged underwriters to the preliminary fund are confident that their enterprise and liberality in financing the opening campaign will electrify producer, manufacturer, distributor and consumer alike and that the big fund of \$750,000 will be subscribed promptly.

Chicago. W. E. Skinner.

Swat the politician who asks for your vote because he is "a good party man."

HOT WEATHER

the season a

DE LAVAL SEPARATOR

saves most over
any other separator
or skimming system



IT'S A GREAT MISTAKE FOR any dairy farmer without a separator or using an inferior machine to put off the purchase of a De Laval Cream Separator in the summer months.

GREAT AS ARE THE ADVANTAGES of the De Laval over all other separators, as well as over any gravity setting system, at every season of the year, they are even greater during the mid-summer season than at any other time.

THIS IS BECAUSE HOT weather conditions occasion greatest butter-fat losses with gravity setting and render it most difficult to maintain quality of product with any gravity system or unsanitary separator, while, moreover, the quantity of milk is usually greatest, and any loss in either quantity or quality of product means more.

THEN THERE IS THE GREAT saving in time and labor with the simple, easy running, easily

cleaned, large capacity DeLaval machines over all other methods or separators, which naturally counts for most at this time of the year.

HENCE THE GREAT MISTAKE of putting off the purchase of a De Laval Cream Separator in summer, whether you already have a poor machine or none at all, and every dairy farmer should keep in mind not only that a De Laval will pay for itself by next spring but may, if desired, be bought on such liberal terms as to actually save its own cost while being paid for.

EVERY CLAIM THUS MADE IS subject to easy demonstration, and every De Laval local agent is glad of the opportunity to prove these claims to you, in your own dairy, without cost or obligation on your part.

IF YOU DON'T KNOW THE nearest De Laval agent please simply write the nearest main office as below.

The DeLaval Separator Co., 165 Broadway, New York
29 E. Madison St., Chicago
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

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Let's go and get some good old

Coca-Cola

When you're hot and thirsty, or just for fun, there's nothing comes up to it for deliciousness and real refreshment.



Demand the genuine by full name—
nicknames encourage substitution.

THE COCA-COLA CO.
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\$15 95 Upward ON TRIAL
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FULLY GUARANTEED
CREAM SEPARATOR

A SOLID PROPOSITION to send new, well made, easy running, perfect skimming separator for \$15.95. Skims warm or cold milk; making heavy or light cream. Bowl is a sanitary marvel; easily cleaned.

ABSOLUTELY ON APPROVAL
Different from picture, which illustrates our large capacity machines. Western orders filled from western points. Whether dairy is large or small write for handsome free catalog. Address:
AMERICAN SEPARATOR CO.
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When writing to advertisers be sure to mention the Farmers' Mail and Breeze

Delivered TO YOU FREE
A sample 1916 model "Ranger" bicycle, on approval and 30 DAYS TRIAL.

Write at once for large illustrated catalog showing complete line of bicycles, tires and supplies, and particulars of most marvelous offer ever made on a bicycle. You will be astonished at our low prices and remarkable terms.

RIDER AGENTS Wanted—Boys, make money taking orders for Bicycles, Tires and Sundries from our big catalog.

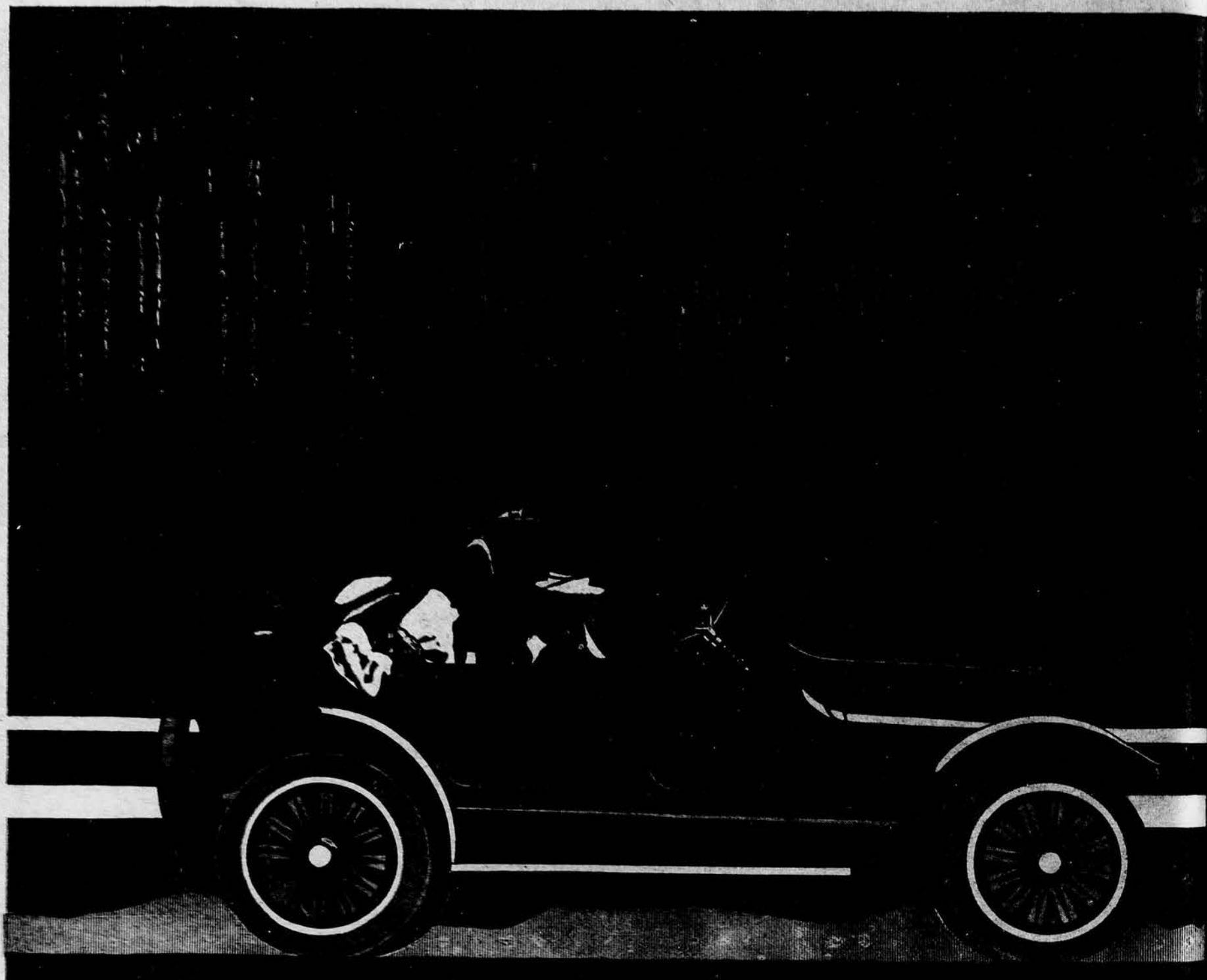
Do business direct with the leading bicycle house in America. Do not buy until you know what we can do for you. WRITE TO US.

MEAD CYCLE CO., DEPT. C-177 CHICAGO

The Threshing Problem Solved

Threshes cowpeas and soybeans from the mown vines, wheat, oats, rye and barley. A perfect combination machine. Nothing like it. "The machine I have been looking for for 20 years." W. F. Massey. "It will meet every demand." H. A. Morgan, Dir. Tenn. Exp. Sta. Booklet free. Dpt. 3.

KOGER PEA AND BEAN THRESHER CO., MORRISTOWN, TENN.



What 1000 Cars a Day

These two latest Overland developments again emphasize the enormous economy of enormous production.

No one has ever before made 1000 a day of cars of this size and class—nor half that many.

1,000 cars a day enable us to use materials of a much higher quality and not only permit but actually enforce an accuracy of workmanship which smaller productions of cars in the same price range *neither permit nor require*.

1,000 cars a day make possible better, larger, much more comfort-

able cars than have ever before been possible at anywhere near the price.

This newest Overland is the largest Four ever offered for so low a price.

In the first place, note the longer wheel base—112 inches.

The enbloc 35 horsepower motor which has made the Overland famous is continued.

True—it is perfected even more and now it is a fitting climax of the experience obtained from a quarter of a million of these Overland motors in daily use.

Shock absorbing cantilever type rear springs are a big improvement.

The gasoline tank placed in the rear is another improvement. The vacuum system insuring a steady even gasoline flow at all times is still another improvement.

The famous and complete Auto-Lite electric starting and lighting equipment is furnished.

All electric switches are on the steering column—right within reach.

The artistically designed streamline body with one piece cowl makes this car one of America's most attractive models.

The New Four

Model 85-4

35 horsepower en bloc motor
122 inch wheelbase
32 x 4 inch tires
Cantilever rear springs

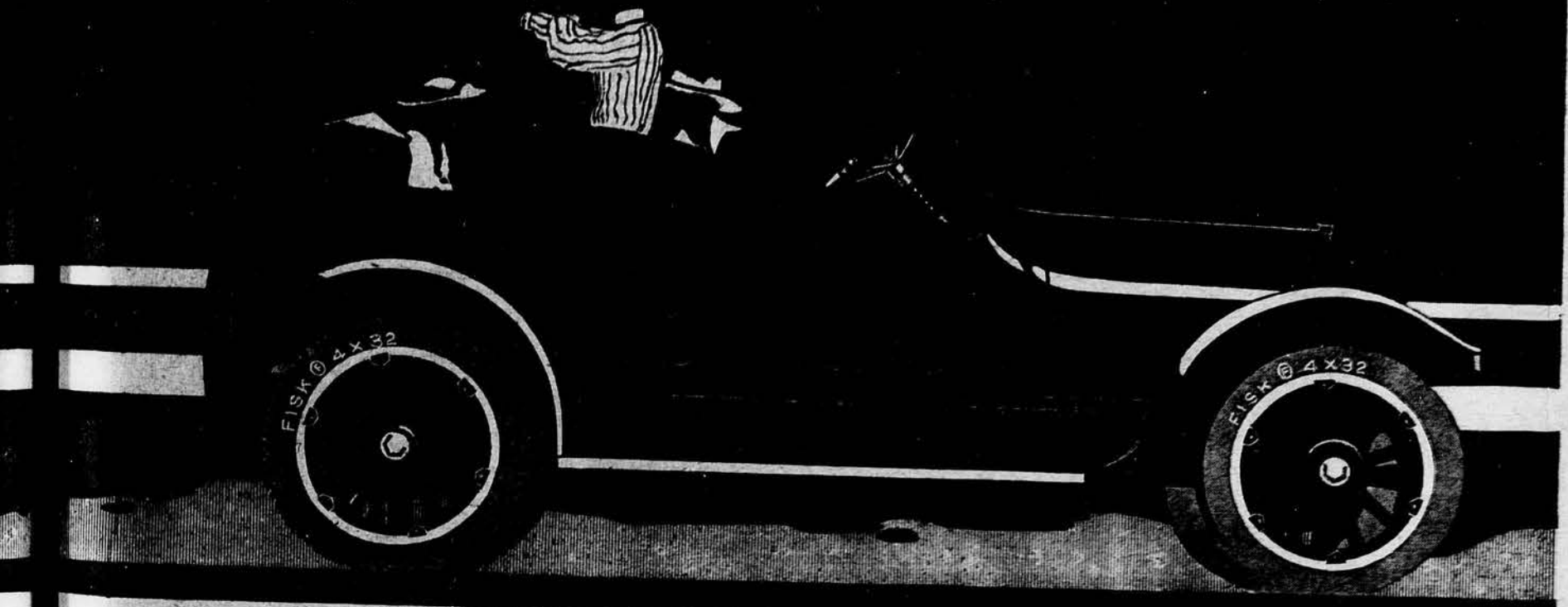
Auto-Lite Starting and Lighting
Vacuum tank fuel feed
Gasoline tank in rear with gauge
Electric control switches on steering column

Catalog on request.

The Willys-Overland

"Made in America"

KANSAS STATE AGRICULTURAL COLLEGE
17 JUL 16



a Day Make Possible

Yet the price of this, our greatest six cylinder value, is less than any of its size ever sold for before.

* * *

No less a pace maker is the newest Overland Six.

Here is the Six of Sixes! A snappy passenger long stroke 40 horsepower model—easy to handle, light, economical, mighty comfortable, giving all the advantages of higher priced Sixes, yet it comes absolutely complete at a lower price than any other six of its size.

Address Dept. 742.

Company, Toledo, Ohio

Its smart body design is long and low—having lines of artistic simplicity.

And the motor! This will warm the heart of every six cylinder enthusiast in the country.

You've heard all about fast get-aways—smoothness—crawling and climbing on high. This Six does all that and then some!

The wheel base is 116 inches. It has cantilever springs and even-flow vacuum system with the gas tank in rear.

The tires are four inch. It has the complete Auto-Lite electric starting and lighting equipment with all switches on the steering column.

* * *

Some Six! Yet the price is lower than any other Six of its size.

But go to the nearest Overland dealer and see these new models. Go over them—note all the very real and important improvements, and learn the prices.

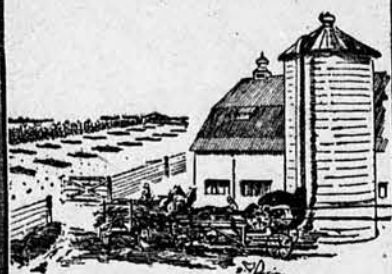
The Overland dealer is ready to make demonstrations of both models now.

The New Six

Model 85-6

35-40 horsepower en bloc motor
116-inch wheelbase
32 x 4 inch tires
Cantilever rear springs

Auto-Lite starting and lighting
Vacuum tank fuel feed
Gasoline tank in rear with gauge
Electric control switches on steering column



Silverize Your Silage

for Better Fat Stock
and Dairy Profits

CORN cut by Silver's
"Ohio" Silo Filler makes
better silage according to
the records of "Ohio" users.

There's a difference in silage just as there is a difference in the machines that cut it. Some silage goes into the silo with long shreds and leaves which form air pockets and spoil the silage. Other silage is cut in uneven lengths—the sugar does not get out to properly act in the fermenting process. Silverized silage is cut in short, even lengths. The sugar juices around the joints of the cornstalks are released—the silage packs down air-tight in a homogeneous mass. Makes the right kind of food to bring maximum milk yield from dairy cows—or to put weight on fat stock.

Silver's "Ohio" The Logical Silo Filler

"Ohio" cut silage is cut finer and more uniform than ordinary silage. Shorter lengths. Not just in spots but all the way from bottom to the top of the silo. The reason is, the knives hold their position. For example, if you set them at half inch, they cut half inch right along. Pressure of the material cannot spring them out of place. They are of the sturdy cylinder type, with bearings at both ends. Have accurate, patented adjustments for a quick, short, clean, shearing cut. The material is cut to a mold-proof semipulp—fine and free from "air pockets" and uncut leaves.

And this is but one of the many big features on Silver's "Ohio." Write and let us tell you about the others. About the new beater self-feed that saves a man's work at the feed table; the direct drive—drive pulley, knife cylinder and blower fan all on one shaft, reducing friction and saving power; the low-speed, explosion-proof blower fan; single lever control; bulldog grip feed rollers, friction reverse and others.

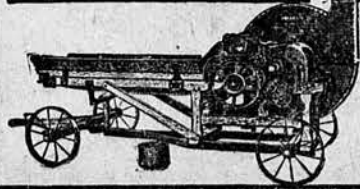
Books Free

One is our catalog—tells about Silver construction and why Silver's "Ohio"—the pioneer—is the logical silo filler for the custom man or the man who does only his own work. The other is a booklet that shows in dollars and cents why it pays to "Silverize your silage." Write today.

The Silver Mfg. Co.
348 Broadway
Salem Ohio

Silver's "Ohio" is made in seven sizes—fit any farm or purse. For 4 h.p. gas to big tractors. 40 to 300 tons a day. Special light draft models for 4 to 8 h.p. engine.

"Modern Silage Methods"
264 pages—sent for 10c—
coin or stamps



AGENTS I've a new soap game that's a
dandy. New stuff. 100% profits.
Write quick. LACASSIAN CO., Dept. A, St. Louis, Mo.

TOM McNEAL'S ANSWERS

A has mortgages to sell, one of which is purchased by B. When the mortgage falls due B notifies A that he wants his money. A renews the mortgage to himself; keeps B waiting six months for his money. Can he then charge B \$10 for collecting when all he was to do was to notify the mortgagor that B wanted his money?

Chanute.

READER.

Not knowing the size of the mortgage or the nature of the verbal or written contract, if any, between A and B in regard to A's fee or commission for collection I am unable to advise whether he was entitled to collect \$10.

No Chance for You.

I own 80 acres valued at \$60 an acre. It has comfortable improvements on it; 50 acres of growing crops, all looking fine. Have about \$500 worth of personal property. Am drawing \$80 a year from oil lease and \$30 from rent of pasture; am not in debt to exceed \$2,000. I have always paid my debts when due, or even before. If I go to public sale and buy stock not to exceed \$120 worth, has the bank that is to cash the checks a right to refuse to take my note? If it has no right and I can prove that they have damaged me can I collect damages from them?

SUBSCRIBER.

I do not know of any law which will compel a bank to buy any one's note no matter how solvent the maker may be. If that is your only ground of action against the bank you cannot recover damages.

Trespassing Dogs.

A has two dogs which come on B's premises and chase pigs. Two pigs are missing. Has B a right to kill those dogs? There is a \$10 valuation on each of the dogs. Can A collect damages from B?

READER.

A has the right to protect his property from trespassing dogs and would have the right to kill the dogs if necessary in order to protect his stock. He would not have a right, however, to go afterward and kill the dogs when not actually trespassing on his premises.

If B was damaged by A's dogs he can collect from A the amount of the damage, provided of course that A is financially responsible. The fact that A's dogs are valued at \$10 each would cut no figure in a suit for damages.

State Officers and Others.

Please print the names of the state officials of Kansas, and their respective offices; the U. S. Senators and Representatives and the names of the President's cabinet and their respective positions.

Augusta, Kan. JENNIE MCCLURE.

Governor of Kansas, Arthur Capper; lieutenant governor, William Y. Morgan; secretary of state, J. T. Botkin; auditor of state, William E. Davis; state treasurer, Earl Akers; attorney general, S. W. Brewster; superintendent of public instruction, W. D. Ross; superintendent of insurance, Carey J. Wilson; state printer, William Smith. Members of Supreme Court, William A. Johnston, Judson S. West, Silas Porter, Rousseau A. Burch, Henry F. Mason, John Marshall, John S. Dawson.

United States Senators, Charles Curtis, William Thompson. Congressman, first district, D. R. Anthony; second district, Joseph Taggart; third district, Philip Pitt Campbell; fourth district, Dudley Doolittle; fifth district, Guy T. Helvering; sixth district, John R. Connelly; seventh district, Jouett Shouse; eighth district, W. A. Ayers.

Automobiles.

I should like to know the number of automobiles in the United States a year ago and at present; what it takes to run them and how long on the average they can be run. Also how many vacant churches there are in the United States, and how many preachers and the average salary.

Detroit, Kan. M. H. C.

On June 1, 1915, the number of automobiles in the United States was 2 million. I do not know the number manufactured since then but it will approximate a million. To run 3 million automobiles for one year will require at least 1,500 million gallons of gasoline worth at present prices 270 million dollars; 30 million gallons of lubricating oil worth 12 million dollars; 18 million tires worth at least \$16 apiece, or an aggregate of 283 million dollars; accessories, such as goggles, gloves and caps \$50 a car, or 150 million dollars total; garage charges \$100 a year or 300 million dollars; general repairs \$50 a car or a total of 150 million dollars. Total running expenses for all cars in use for year 1,170 million dollars. Add to this the cost of new cars estimated at \$1,000 a car and the total cost of motoring in the United States

for the last year would be 2,170 million dollars. It is very difficult to say what is the average life of a car. I should suppose not more than five years.

The total number of ministers of all denominations in the United States in 1914 was 178,313. I have no way of ascertaining the average salary of these ministers or how many vacant churches there are in this country.

Working on Sunday.

Is there a law in Kansas forbidding Sunday labor and if so how can one go about it to enforce it? In Western Kansas in the sugar company district men are compelled to work on Sunday or quit. A man has not the privilege of staying at home with his family or attending church services. He must work seven days in the week or lose his job.

Deerfield, Kan. FARMER.

Section 2758, Chapter 31, General Statutes, reads as follows:

Every person who shall labor himself or compel his apprentice, servant or any person under his charge or control to labor or perform any work other than the household office of daily necessity or charity, on the first day of the week, commonly called Sunday, shall be deemed guilty of a misdemeanor and fined not to exceed \$25.

Section 2759 provides that this provision shall not extend to any person who is a member of a religious society by which any other than the first day of the week is observed as Sabbath, so that he observes such Sabbath. I judge, from your letter the employers are pretty clearly guilty of violating this statute and may be prosecuted criminally. If you desire to start such prosecution you should file your complaint with the county attorney.

Division of Property.

A is a widow with children. She took up a claim in Kansas and afterward married B who had one child by a former marriage. B had proved up a claim in Oklahoma (which he recently deeded to A). B then moved to A's claim and helped to prove it up and improve it. Children have been born to A and B from this union. We should like to know what disposition would be made of the respective properties in case of the death of either or both.

B'S WIFE.

B seems to have parted with all title to his individual property in real estate. In case of his death before that of his wife the title to all the real estate would still remain with her. If she should die first, half the real estate would go to B and half to their children. B's child by a former marriage would not inherit until the death of its father.

In case B dies first and his widow dies without will all the real estate would descend to her children. In case she dies first without will, as I have said, half the real estate will go to her husband and half to her children; then at B's death his half of the real estate would be equally divided among his children by his first and second marriage.

Voting for a Schoolhouse.

At our annual school meeting last year \$1,000 was voted toward building a schoolhouse. Later a special meeting was called to vote on the new schoolhouse but it was never held. At this year's annual meeting there was another \$1,000 voted to build the schoolhouse. Is this lawful or will there have to be another special meeting called to vote on this?

2. After a building has been condemned can they go on and hold school in the building?

3. Where bonds are not voted is it necessary to call a special meeting to build a new schoolhouse?

4. Does the chairman of the school meeting have a vote?

5. What majority elects the school board?

Greeley, Kan. PATRON.

I believe the school meeting had a right to vote the \$1,000 to build a schoolhouse or to be applied to building it, and to levy the tax necessary to raise the amount. If the tax was not levied last year it would be lawful to levy it this year. I can see no necessity for a special meeting.

2. They should not do so if order of condemnation was broad enough to forbid the use of the house. If the order was that broad the officers of the school district and the teacher could be punished under the provisions of Section 7857, General Statutes.

3. No.

4. In case of a tie, yes.

5. A majority of the qualified electors present at the school meeting.

A has lived on his mother's farm for 11 years and has put up some cattle sheds for his own use. He now wants the heirs to pay for them. Can he compel them to pay him? The sheds are set on posts in the ground. Can he take them off?

G. W. A.

He cannot compel the heirs to pay him for the sheds but the court probably would hold that they are personal property and that he has a right to remove them.

THE NEW "Z"

ENGINE

1 1/2 H. P. on skids \$38.50
BUILT-IN MAGNETO

FAIRBANKS-MORSE quality—service—dependability—at a popular price, tells the story.

More than rated power and a wonder at the price

Simple—Light Weight—Substantial—Fool-proof construction—Gun Barrel Cylinder Bore—Leak-proof compression—Complete with Built-in Magneto. Quick starting even in cold weather. Low first cost—low fuel cost—low maintenance cost. Long, efficient, economical "power service."

See the "Z" and You'll Buy It

Go to the dealer—see the features that make the new "Z" the one best engine "buy" for you. When you buy an engine from your dealer you deal with a local representative of the manufacturer. He stands behind the engine he sells. He's responsible to you. He's at your service to see that you are satisfied.

FAIRBANKS, MORSE & CO., Chicago

All Fairbanks-Morse dealers sell "Z" engines on a same carload low freight basis. If you don't know the local dealer—write us.

Fills 61 Silos Without a Repair

W. G. Lindamood of Rempel, O. writes: "I filled 61 silos with the Papec Cutter I bought in 1912, and have yet to spend a nickel for repairs—in fact, I'm sure it will throw ensilage 100 feet in the air; in other words, does just as good work as the day it started." The

PAPEC Ensilage Cutter

Is built to last—simple and strong. It runs at low speed and on light power. A 4 horse power engine, or even less, will run our smallest size successfully. "I filled my 60 ton silo in less than 1 1/2 days with a 4 horse power gasoline engine," writes Mr. T. F. Garner of Kingswood, W. Va.

Own your own Papec. It pays. Send postal for our 1916 Catalog.

Papec Machine Company

Box 24,
Shortsville,
N. Y.

THE PAPEC
KEEPS MEN & TEAMS BUSY

THE FREEMAN ENSILAGE CUTTER

—The Cutter That
Saves You Money

Costs less to buy—less to operate—less for upkeep. The Freeman combines the limit of quality, and economy.

Runs easiest—on least power. Cuts clean and fast. Traveling force feed table—handles big bundles easily. Has extra-strong frame, large feed rolls, adjustable knives, safety fly wheel, safety stop lever.

Steel Enclosed Carrier

reduces running expense, prevents feed blowing away.

GET OUR FREE BOOK showing full line Ensilage and Feed Cutters, Carriers and Blower-Elevators.

THE S. FREEMAN & SONS MFG. CO.

215 Michigan St.,
Racine, Wis.

We can furnish Blower or Enclosed Steel Carrier as desired.

WHEN WRITING TO ADVERTISERS BE SURE TO MENTION THE FARMERS MAIL AND BREEZE.

Every Farmer With Corn To Cultivate, Needs—

The Bates Steel Mule

FULLY COVERED BY PATENTS

At last you corn farmers can get a machine that will prove a better and cheaper worker than a whole gang of hired hands. The Bates Steel Mule helps like this with the corn crop—lists, plows, plants, cultivates, harvests, husks, shreds, fills the silo, shells, grinds or hauls the corn to the market. And the most remarkable feature is that it



ONE MAN CULTIVATES
25 ACRES OF CORN
A DAY

Here's What Users Say

Mr. L. Van Doren, Minneapolis, Kansas. It is more powerful than the Company claims it is. It pulled three 14-inch plows 9 inches deep, in the toughest black soil that there is anywhere. It is so simple to operate that my 14-year old boy drives it.

Mr. Chas. S. Dawson, Richmond, Mo. My Bates Steel Mule pulled three 14-inch plows 6 inches deep on ground which we tried to plow with 4 mules on a 12-inch Siskie Plow and the draft was so great that they couldn't stand up under the weight. The soil was dry and hard in some places, wet and soft in others, in fact we had all the variations in soil conditions that one could think of.

Does It With Only One Man

If you raise small grain, then you need a Bates Steel Mule, especially at harvest time. One man with an eight-foot binder and the Steel Mule will do more than two men, two binders and ten horses. You can harvest 40 to 80 acres a day with the Bates Steel Mule.

You can do MORE DIFFERENT kinds of farm jobs with it MORE DAYS a year than with any other tractor built. That's why our big output is gobbled up as fast as our enormous plant can turn them out. For quality, service and price always win.

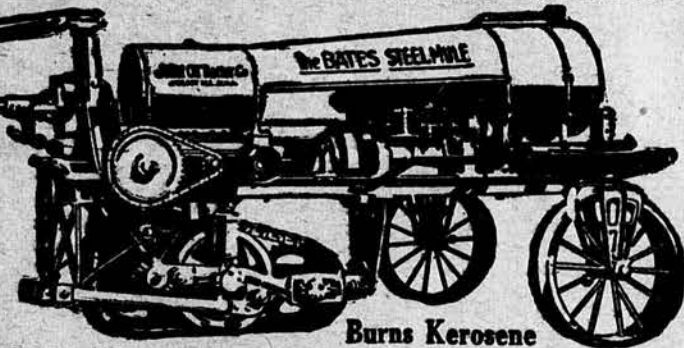
The Bates Steel Mule is propelled with a "Crawler" instead of a wheel which means FULL power at the draw-bar—that it works on any soil, wet or dry, and does not pack the ground. No new implements are necessary—the tools you now have will do the work cheaper, quicker and better when hitched to a Bates Steel Mule.

Get the Facts

We have a whole bundle of pictures and facts about the Bates Steel Mule that you ought to have. Why not write for a complete set today?

JOLIET OIL TRACTOR CO.
98 Benton Street Joliet, Illinois
Missouri, Kansas and Oklahoma Distributor

C. H. BANTLEY
1730 Walnut St., Kansas City, Mo.



Burns Kerosene

SEE THIS GREAT MACHINE AT ALL THE TRACTOR DEMONSTRATIONS

Study These Pictures!



One Man Harvests 40 Acres a Day

One Man Plows 10 Acres a Day

One Man Drills 50 Acres a Day

30 H. P.
\$895
READY FOR WORK
Built In The World's
Largest Exclusive
Light Tractor Factory

Wheat Harvest in Dickinson

BY HARRY A. HUFF.

Wheat cutting started here June 21 and nearly everybody is at it. The wheat is all filled fine where the fly did not bother it. The oats here is ahead of the wheat in some places and several men cut their oats first. That is something which does not happen very often here. Oats is usually a week later than the wheat.

The corn is as large for this time of the year as I have ever seen it, and a good many of the fields will be too large to cultivate by the time the wheat is cut. We have started to cut the second crop of alfalfa on this farm and about half of it is cut down. It is fine quality and while it is not quite as heavy a crop as the first cutting it is better hay. This crop is going to fill the barns full and the next cutting will have to be stacked. By the time the third cutting is ready the weather generally is dry enough so it can be stacked outside and there will not be much waste from the rain. It is best to have it in the shed if possible.

Last Friday, I had Prof. George A. Dean, who is the state bee inspector for this part of the state, come up from Manhattan and inspect my bees. The first thing that he told me was that they were ready to be extracted from and that I had better go right at it. The result is that I have been extracting honey the last three or four days. The extracting is the easy part of it; the worst job I have being to get the bees off the combs.

Harvesting is Finished

BY W. H. COLE,
Cowley County.

The wheat is all cut at last. So far as we know there is no one who is sorry because harvesting is done for it has been a long drawn out job. Not so long as it was last year to be sure but too near like it to be pleasant.

There is going to be a great deal more wheat stacked here this year than for several years. There has been but very little grain of any kind stacked here for a good many years and a man,

especially a young or middle aged one, who can put up a good stack of wheat or oats is an exception and will be able to obtain employment this year in stacking.

Before harvest we were considerably agitated about the price of twine. The local Grange, however, acting as a body and paying cash was able to get the Standard Deering twine, which is as good as anyone could wish for, for 10 1-10 cents a pound. We see no reason why anyone should object to such a price.

Alfalfa is being cut the second time here and the crop is fully 50 per cent heavier than the first cutting. The quality of the hay will not be so good, owing to the frequent showers. Even if a rain does not catch it the heavy dews are almost as bad to wet it.

The season has been cold and wet. A year of this kind is supposed to be bad on mulched potatoes and yet the patch that was mulched on this farm is the best we have this year and in fact the best we ever raised. The ground, which was an old sheep pen, was plowed deeply in the winter. Then it was plowed still deeper in the spring and the potatoes were planted on April 12. The ground was smoothed down with a harrow and marked off with an old sled which had runners about 20

inches apart. The seed was dropped in these marks, which were 2 inches deep, and then covered with a hoe to a depth of perhaps an inch. As soon as the plants began to break thru the patch was covered to a depth of about 1 foot with straw and now when a mess of potatoes is wanted all that is necessary is to turn back the straw and there they are, great big fellows, all ready to pick up without any digging.

Good Stacking is Needed

I like to build ricks when stacking grain, but for a beginner I would advise him to build round stacks as they are much easier made. To begin with, throw down some old hay or straw the size you want your stack, say about 12 feet in diameter. Then begin like you were going to make a shock of wheat in the center. Keep going around at the same time getting the sheaves a little more slanting, so that by the time the bottom is large enough, the sheaves will be almost flat, but at the same time the butts of sheaves will all be on the ground. Now start around the outer edge and build up, tramping the outer edge as you go around, and keep tying back toward the center so your stack will not slip. It is not at all necessary to slant the outside course until you get ready to draw in. Run the stack about 2 feet high, then slip the outer

course out some as you go around each time, until the stack is at least 2 feet larger all around. All this time keep the stack about level, but at the same time keep it well tramped all over.

Now the stack is ready to draw in. Begin by dropping a course of sheaves, letting the butts of sheaves strike the outside course at about the bands. When that course is on, drop back with the next course the same way until you get to the center, and by that time the center should be at least 18 inches higher than the outside. Now go back to the outside and put on a course and be sure to keep it out as far as the one below, but do not tramp it. Now fill to the center as before, keeping the whole stack well tramped except the outside course that should never be tramped after beginning to draw in. By this time the outside course should be at an angle of about 45 degrees. Keep on drawing in a little each round until the stack is completed.

If these instructions are observed closely there is no need of having any spoiled grain.

Holton, Kan.

George N. Haas.

Whitewash That Lasts

Please inform me how to prepare whitewash so it will withstand the weather and not wash out in a heavy rain.

HENRY BRANDENBERG.

Osage Co., Oklahoma.

To make the whitewash which has been used for more than 10 years in the White House at Washington and on the lighthouses maintained by the government along the coasts, take a half bushel of unslaked lime and slake it with boiling water. Cover during the process to keep in the steam. Strain the liquid thru a fine sieve or strainer and add to it a peck of salt, which previously has been dissolved in warm water; 3 pounds of ground rice boiled to a thin paste and stirred in while hot; 1/2 pound Spanish whiting; and 1 pound of glue previously dissolved by soaking in water and then hanging over hot water. This is best accomplished by putting in a small pail and hanging in a larger one filled with water. Add 5 gallons of hot water to the mixture, stir well, and let stand a few days covered. It should be applied hot, for which purpose it can be kept in a portable furnace.

If your subscription is soon to run out, enclose \$1.00 to the Farmers Mail and Breeze, Topeka, Kan., today, and we will include a year's subscription to Capper's Weekly.

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 and Capper's Weekly for one year, in accordance with your special short time offer.

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

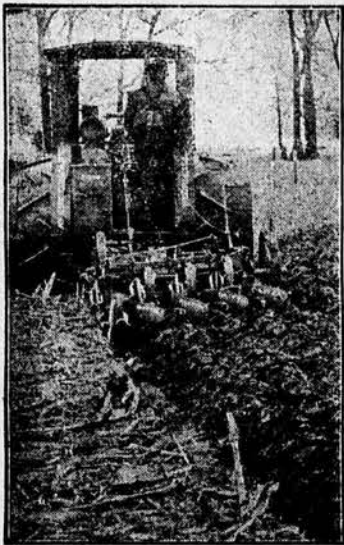
My name.....

Postoffice.....

State..... St., Box or R. F. D.....

THIS COUPON MUST BE RETURNED WITHIN 20 DAYS!

Oliver



We all know that ability to do good work is the most important consideration in the purchase of a tractor plow. When attending a tractor plow demonstration, ask Oliver representatives to fully explain why:

Oliver tractor plows scour under the most trying conditions

The bottoms raise or lower in a short space of travel and so enable the plows to do even plowing at the ends of the field

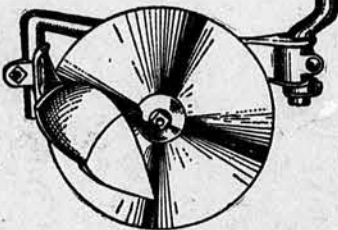
Wide range of adjustment assures even depth plowing

Trash and weed seeds are buried on the bottom of the furrow by the combined rolling coulter and jointer and why this is an important part in the preparation of the seed bed

Time and labor is saved by means of the quick detachable share that permits share changes without the use of a wrench

The bail construction of the No. 62 tractor plow eliminates hitch adjustments

The lifting mechanism of the No. 78 power lift operates instantly at the pull of the trip rope



The Oliver combined rolling coulter and jointer plays an important part in good plowing.

Whether you can attend a tractor plow demonstration or not, write us for circulars on the Oliver No. 62, two and three bottom plow and the power lift, No. 78, two or three bases. We will give you the name of the nearest Oliver dealer where you can see these plows.

Oliver Chilled Plow Works
Plowmakers for the World
South Bend, Ind.

MORE WHEAT

Increase your yield 50% to 100% by using
COCHRANE'S
Animal Matter Fertilizers
which contain "The Most Plant Food."
A few agencies vacant. Write today.
The Cochrane Packing Co., Kansas City, Kan.

What Shall I Do, Doctor?

BY DR. CHARLES LERRIGO.

On these hot days the very name of water sounds a welcome note; memories of long, cool draughts soothing a parched throat, of the trickling of a spring down the hillside, and of the shade and coolness of the old swimming hole arise. But for most of us in this country our chief source of supply for all purposes is a hole in the ground enshrouded in mystery.

All of our stores of water descend from the clouds. The rain falls upon the earth, part of it runs off at once and fills the ditches and streams and creeks; part of it sinks into the ground, which absorbs a share and allows the rest to sink deeper until it reaches an impervious stratum and forms a collection of water. This seeks an outlet which it finds on a bank, in a pond or lake, or in a hole dug by man perhaps for a well. It is then exhibited to us as a spring. If it has any special properties, any sulphur or saline or iron or whatever it may be, it has drawn it from mineral deposits thru which it has traveled to reach its bed. When we dig a well we find water at the particular layer of the earth that is dense enough to stop the further passage downward of the rainwater.

That is one reason why a well may be contaminated, especially a shallow well. The water in it has all soaked thru from above, and if it has passed thru a great deal of contamination it may not receive enough purification if the earth it soaks thru to get rid of its load of evil. That is a particular reason why an outhouse or barn should never be located on the same plane and within easy distance of a well.

Wells should be especially protected in hot weather. There is more decaying animal and vegetable matter on the surface, and when the earth cracks and gapes with the drouth there is more opportunity than ever for contaminating matter to find a way in, especially if a sudden flood of rain comes to sweep everything in its course down to the water-bearing soil. This serves to show why a drilled well is safer than a shallow, dug well of the ordinary kind.

One way to help make a dug well safe is to provide a cement cover. In reading our paper the other day I noticed where Harley Hatch told of making a cement well platform as a wet weather job. He did it all himself, using 1½ sacks of cement at 45 cents a sack and 700 pounds of sand at 7 cents a hundred and some rock picked up around the place. This will go far toward making a well safe, for 50 per cent of contamination gets in thru the cover. The well should have a brick casing right from the bottom, laid in cement mortar, pointed inside, all the way up from the water-bearing portion, and should be brought up about 1½ feet above the surface so the cover may fit snugly over it.

Seldom is there need of cleaning a well that is built in so thoro a manner as to exclude the intake of trash, small animals and the like from top and sides. It is objected that the tight cement cover will not permit ventilation, but experience has shown that a well so protected does not suffer from lack of ventilation unless fouled from outside sources. Pure water, in a cased and covered well, free from pollution, will keep sweet for years without other cleaning than that which goes on automatically as the well is kept in use.

In certain districts the soil is such that dependence must be placed on a cistern rather than a well. With proper care in its collection and storage cistern water may be just as healthful as well water. The cistern should be absolutely water-tight, not only to hold the water it collects, but, more important still, to prevent ground water from getting in. Most of the pollution that gains access to a cistern is washed from the roof in the first heavy rain that follows a dry period. For this reason there should always be a "cut off" in the spouting, which may be used to divert the water until the roof is well washed; furthermore this valve should always be set for use. Since the renewal of cistern water is not as constant as that of a well it should be cleaned more frequently; say at half-yearly intervals.

Water from a properly constructed well or cistern is just as safe in hot weather

as in cold. It is not the change in weather that affects the water; it is pollution from outside. If there has been a case of typhoid fever or other infectious disease on your place, thus giving you cause to suspect the purity of the supply, by all means have all the water boiled before using it for drinking purposes; or, better still, use some other supply while you clean out and set your well in order.

Infantile Paralysis.

There is great alarm thruout the country just now because of the epidemic of infantile paralysis prevailing in New York. I am asked by anxious parents whether it will spread to our western country, and I am bound to admit that probably it will.

There are some things you can do to prevent the attack of the disease. I hear that certain residents of New York are running away with their children to safer places. That may be all right and quite justifiable for anyone who has to live in New York, but of course none of you will do anything of that kind. I do not think your children would be in extreme danger even if there were a case next door to you, provided that it was properly quarantined and you took care to guard your family.

Quarantine is very necessary in this disease. I think the bread winner may be allowed to attend to his work if he will keep away from the patient, change his clothes, and spray his throat and nose with an antiseptic; but excepting for this the quarantine should be strict.

No child who is afflicted with the disease, no matter how mild the symptoms, should be allowed out of bed until the doctor so orders.

The disease is due to a specific virus caused by a small microbe which finds its favorite site in the mucous membranes of the nose and throat, and is also found in the intestines. It is therefore very important to disinfect or destroy all body discharges from the patient. All excretions should be treated with chloride of lime or carbolic acid before disposal in the sewer, or by burial. Bed linen, towels and gowns of the patient should be boiled and all utensils used in the patient's room sterilized by heat. The person who waits on the patient should wear a long gown and clean up thoroughly before leaving the room.

I quite expect some person to say that this is a lot of trouble for nothing, declaring that the disease is not contagious because it so frequently happens that one child of a large family will suffer without further spread of the disease in that home. The fact is true but not the theory. Immense consideration and investigation has been given to this subject, and it has been proved beyond a doubt that the disease spreads by personal contact. So do not slight quarantine precautions.

As a preventive measure give especial care to your children during the dry hot season of summer and fall, for this is the time when the disease spreads most rapidly. Watch their diet and their play and work. Protect them from excessive fatigue. Do not allow them to overdo in the hot sun. Keep them from visiting sick persons, and do not allow them to come in contact with domestic animals that are sick. It is doubtful whether such animals spread the disease but it is well to be on the safe side.

Repair all screens so that your house may be fly proof. Clean up about your premises. Pay particular attention about the closet and barns. See that no heaps of garbage lie uncared for, and that nowhere on your premises is there any spot where infection may breed.

As to treatment; get the physician in whom you put most trust and stay by him thru thick and thin. There is no specific cure that he can give, but he can aid your child in the fight in many ways and his help may mean just the difference between life and death.

Not all cases of the disease are fatal—about 15 per cent is a fair average. The reason so much concern is felt is not because the death rate is so high, but for fear of permanent paralysis being left. The outlook for improvement of the paralysis depends a great deal upon the amount of care and skill you are willing to give your child in helping him to overcome it. One-fourth of the cases make a complete recovery and about half get back very good use of their bodies.

I hate to complain of a neighbor, but there's an old crank in our district who won't bury a dead cow. He says the animal is on his own ground and isn't hurting

anybody and he'll do as he pleases. Can the state board of health make him get rid of it? G. W. S.

Since you live in Kansas you need not trouble the state board of health, for your local officers have plenty of authority to compel the disposition of remains of dead animals. Chapter 167 of the 1911 Statutes provides a penalty of a fine of from \$1 to \$25, and every 24 hours constitutes a separate offense. Possibly a little reasoning will convince your neighbor that he is wrong in saying the carcass does not harm. A decomposing carcass is always dangerous and when the animal has died of some infectious disease such as tuberculosis, anthrax or cholera, it is extremely so. The odor invites scavengers and the scavengers may spread disease over a wide territory so that a whole county may be contaminated.

What is the idea of giving castor oil always when the children have diarrhea? Can it be overdone? MRS. W. B. K.

It is a good idea and it can be overdone. When a child has diarrhea it means that some offending substance is disturbing the intestinal tract and the intestines are excited to special effort to get rid of it. A ½-ounce dose of castor oil may clear out the whole offending mass and give relief. It is not much good to do this cleaning work and immediately renew the trouble by feeding more irritating food. Most youngsters can stand a day of starving under such circumstances. To allow a child to continue day after day with diarrhea and do nothing but give repeated doses of castor oil is overdoing it. Find the error in diet and correct it.

I read in the paper about a child who died from drinking fly-poison. We have our house screened but we just can't seem to keep all the flies out. Please tell me a safe fly-poison to use. MRS. G. T.

The common Tanglefoot paper is safe, but may be inconvenient. The United States Public Health service has a man experimenting and has reached the conclusion that formalin is the best and safest liquid poison. A teaspoonful of formalin is mixed in a quart of water. The mixture is then placed around in saucers in attractive spots. A few pieces of bread may be broken into the solution to invite the fly to his doom. A child will not drink this willingly and it will not poison him if he does.

I should like to know thru the Farmers Mail and Breeze how to cure warts. I have a lot of small ones on my thumb and hand. They have not been on very long. W. T. M.

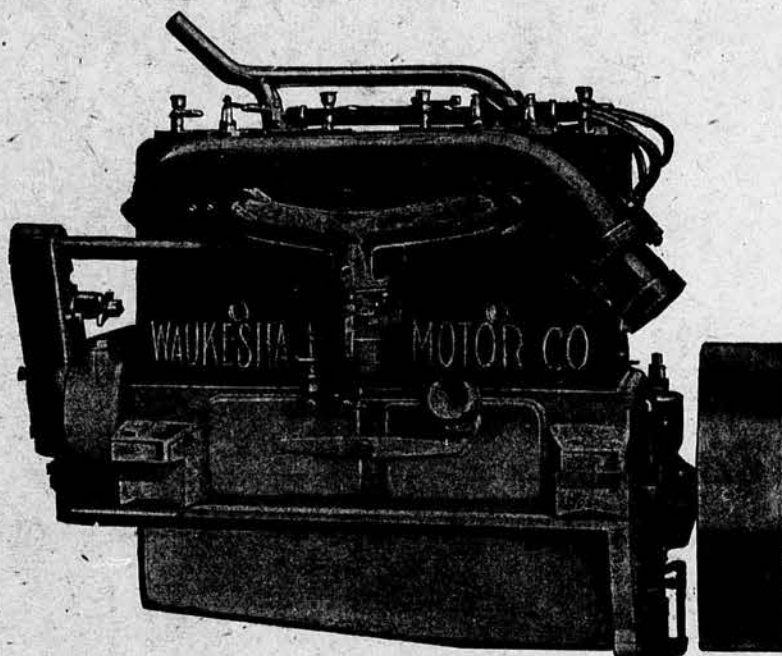
Warts often disappear without treatment. When stubborn a safe application in the hands of a careful adult is Glacial Acetic Acid. This may be applied to the surface of the wart night and morning. As the effect of the acid is apparent the dead skin should be removed and the lower part treated until all is clear. Do not make the mistake of overdoing the treatment and setting up an inflammation.

I have the backache so that it makes me very miserable. On arising in the morning I am perfectly fresh but soon start to feel heavy and can scarcely finish the breakfast without lying down; it always relieves my back to lie down. The soreness extends over the left hip and down the left side of my abdomen which is tender and very prominent. I am 35 years old and have borne eight children. I feel all run down but am 10 pounds heavier than I used to be. Hoping I have made it clear to you without tiring your patience I am MRS. H.

In a woman who has borne eight children a persistent backache suggests some displacement of the uterus, possibly a prolapsus. I cannot be positive in diagnosing such a case without examination and it will be well for you to consult a physician. Prolapsus of the uterus is often given great relief by taking time every day to replace the organ by taking the "knee chest" position. To do this you kneel on the bed with both face and chest well down and hips well forward, thus tipping the uterus back to its position. After maintaining the position a few minutes lie prone on the bed and rest for half an hour.

Engine "WHY?" Book.

One of the cleverest little books on engines that has ever been published, has just been printed by Mr. Ed. H. Witte, a Kansas City engine expert. He says that while the supply of books lasts, he will be glad to send anyone who is interested a copy of this book, which is called "Why?" Just write "Why" with your name and address on a postal or scrap of paper and address Mr. Witte, 154-S Oakland Ave., Kansas City, Mo.—Advertisement.



A Message to Tractor Buyers

Visit the Tractor Demonstration at Hutchinson, Kan., St. Louis, Mo., or Fremont, Neb.

You will have an opportunity there to study the world's best tractors.

Pay close attention to the question of tractor **power**. Keep in mind that the vital part of a tractor—the feature that determines its real value is the **motor**—the power plant.

The tractor operator who **knows** would prefer to have a tractor of questionable design equipped with a **good motor** rather than a tractor of approved design equipped with a poor motor. The reason for this is obvious. In the first case, he **has the power** and with a little ingenuity can use it. In the second case, **not having sufficient power**, his tractor can accomplish little or nothing. Therefore, carefully consider the **motor** before you buy the tractor.

More than a score of America's leading makes of tractors are equipped with Waukesha Motors. In fact, one out of every three tractor builders in the U. S. equips his product with the Waukesha Motor.

This wholesale endorsement of the Waukesha Motor by so many successful tractor manufacturers should guide you in your tractor purchase.

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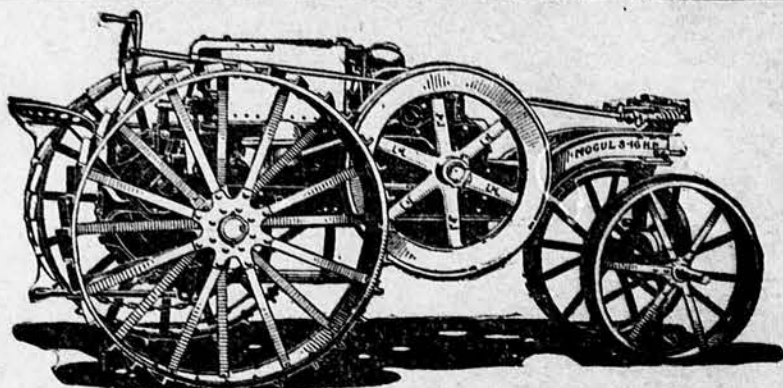
In The Tractor You Buy

To you, Mr. Tractor Buyer, this means much. The very fact that a tractor is equipped with a Waukesha Motor is your assurance of reliable tractor service.

If you cannot visit the tractor demonstrations, write for our free bulletin—"A Guide to tractor buying."

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World's largest exclusive builders of tractor motors.

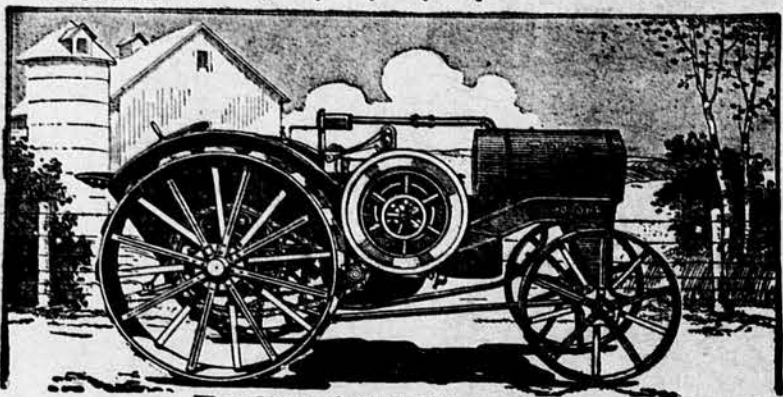


Mogul 8-16. \$725 Cash f. o. b. Chicago

Tractor Demonstrations—1916

| | |
|--------------------|----------------|
| Dallas, Texas. | July 18 to 21 |
| Hutchinson, Kansas | " 23 " 28 |
| St. Louis, Mo. | Aug. 1 " 4 |
| Fremont, Nebr. | " 8 " 11 |
| Cedar Rapids, Ia. | " 15 " 18 |
| Bloomington, Ill. | " 22 " 25 |
| Indianapolis, Ind. | " 29 " Sept. 1 |
| Madison, Wis. | Sept. 5 " " 8 |
| Aberdeen, S. D. | " " " " " " |
| Fargo, N. D. | " " " " " " |

Dates not announced



Titan 10-20. \$900 Cash f. o. b. Chicago

INTERNATIONAL HARVESTER COMPANY OF AMERICA

CHICAGO (INCORPORATED) U S A

See the Real Kerosene Tractors

Of course you are going to attend one of the tractor demonstrations this year.

Before you go, get the local prices of gasoline and kerosene, so that you will have the difference clearly in mind, because, at any demonstration you will be shown two kinds of tractors—those that operate on gasoline and those that operate on kerosene.

The kerosene tractors can be divided into two classes. One class consists of engines originally designed for gasoline. To these, special attachments have been added, and, under favorable circumstances they will operate on kerosene, or gasoline mixed with kerosene, but they require so much kerosene that there is no economy over gasoline.

The other class are the real kerosene tractors. They are designed throughout to operate on kerosene without special attachments, and do operate on the cheaper fuel so successfully that they pay for themselves with the fuel they save.

Moguls and Titans Are Real Kerosene Tractors

Remember the difference in the prices of the two fuels. Remember that a tractor uses two or more gallons of fuel every hour it works. See the kind of work Mogul and Titan tractors do on the cheaper fuel. Compare their work with that of any tractor, either for quantity or quality. Compare the amounts of fuel consumed in doing equal work. Then decide which of all the tractors you see will give you the most value for your money.

In preparation for your visit to the demonstration, let us send you our horse and tractor book, "Farm Power." It contains almost a hundred pages of closely packed, verified information about power on the farm.

To Aid Livestock Farming

BY CARL P. THOMPSON.

Farmers interested in better livestock in Norton county have organized a county breeders' association. One of the main objects of this organization is to "swat the scrub." There are a great many "purebred scrubs" doing service in the state that are a detriment to the livestock in the community and are serving to give the breeding of purebred stock a black eye. It should be the object of the breeders' organizations not only to encourage the use of good purebred sires among the farmers, but to encourage the culling and marketing of all inferior stock by the breeders, selling for breeding purposes only the good individuals that will build up the stock in the county.

Another object the Norton County Breeders' association has in view is to encourage the showing of the purebred stock of the county at the county fair, and their aim is to have every breeder in the county show some stock. This is one of the good ways of spreading the gospel of good livestock, and it is perhaps the greatest incentive in the world to encourage the breeders to produce better stock. Good natured rivalry stimulates interest in the improvement of stock more than anything else. If a breeder stays at home and never sees his stock measured along side of that of his neighbor, he will never know just where he stands in the breeding game. Then, too, it is the best and cheapest advertising you can get.

Men go to the fairs to look over the stock as well as to see the races and there they will form opinions of your stock whether they buy at the time or not, and many will buy while at the fair as they can see what they are getting. I hope that other livestock organizations will take up the same line of work in trying to get the good purebred livestock of their counties out at the county fairs this fall. Too often when we go to the county fair, we are most of the barn room allotted to livestock almost empty. At some of the county fairs in one of our neighboring

states, they have almost as much registered livestock on exhibition as we do at our state fair in Kansas. Kansas has been lax in showing her breeding stock and I believe the breeders' associations can do a great work in bringing about a more general practice of showing breeding stock. This will result in a more general adoption of improved stock by the farmers and a greater improvement of purebred stock by the breeders.

For Alaska Homesteaders

A circular for the use of those who are thinking of settling in Alaska has just been issued by the United States Department of Agriculture, Washington, D. C., as Circular No. 1 of the Alaska Experiment stations, under the title of "Information for Prospective Settlers in Alaska." This circular is designed to answer questions as to the climate and agricultural areas of Alaska, the best places to locate, the ways of obtaining a farm, the means and cost of transportation, cost of living, what crops can be grown, possibilities of livestock production, labor conditions and school facilities.

The American Royal

The eighteenth annual American Royal Livestock show will be held in Convention Hall October 27 at Kansas City, Mo. The four breeds—Hereford, Shorthorn, Angus and Galloway, will be represented. The secretaries report that breeders generally are eager for the big show, and will have stock in fine condition. A total of more than \$12,000 will be offered in prize money in the breed classes, and there will be more prizes than usual in the range classes, contributed by the Kansas City Stock Yards company. A calf class has been added in this division.

The arrangement for the show provides for about half again as much space as was available last year, the additional ground adjacent to the former barn room being used for nurse-cattle chiefly, and allowing for the use of the

entire block across from Convention Hall for the stabling of show cattle.

Special entertainment features will be provided, which will be staged in the big hall.

There will be three auctions, as follows: Wednesday, Galloway; Thursday, Shorthorn, and Friday, Hereford. There will be no auction of Angus cattle.

Following the custom of recent years there will be no judging in the morning. That time will be allowed for the visitors to take in the stockyards, and see the city, after they have viewed the exhibits.

About Billion Dollar Grass

I have some Billion Dollar grass this year. How shall I cut it? How should the crop be handled for the best results? W. B. B.

Minneapolis, Kan.

Billion Dollar grass is the common name for Japanese barnyard millet. It is a millet that is cultivated in Japan, India and other Oriental countries, where the seed is used for human food. Where grown in this country, it is usually planted for forage. It is not a crop that is well adapted to Kansas conditions, as it requires wet weather and fairly high temperatures for its best growth. We have grown the variety at this station but it has been inferior to the other varieties of millet.

You would be unable to get a crop of hay and a crop of seed the same year. I believe that you will find the crop better adapted to hay than to the production of seed. In feeding value it is about the same as common or German millet. L. E. Call.

Kansas State Agricultural College.

This Arithmetic is Better

Here's something new in arithmetic! A textbook, "An Agricultural Arithmetic," has just come from the press of the Macmillan company under the authorship of W. T. Stratton, assistant professor of mathematics, and B. L. Remick, professor of mathematics, in the Kansas State Agricultural college.

The book is a 250-page volume. It is well illustrated and is bound attractively.

The book is the outgrowth of a need found in the school of agriculture of the college. It endeavors first to present the basic principles of arithmetic, but does so by means of the problems met in everyday life on the farm. The concrete problems contained in the work deal with farm life and are based on accurate data obtained from the reports of experiment stations and of the federal department of agriculture. Many important tables are given dealing with such subjects as the percentage of digestible nutrients in feeds and feeding standards. The purpose not only is to give the students sufficient material for drill in arithmetic but also to lead them to a better appreciation of farm life.

The material upon which the book was based has been tried out in pamphlet form for the last two years in classes at the Agricultural college, and has proved successful. It is designed for use in the advanced grades of the rural schools and for the students in the agricultural courses in the high schools. It will be used as a text in the school of agriculture, and it is expected that it will be adopted by a large number of schools over the country.

Handy Ideas for a Disk

I am sending you drawings of two devices for use on a disk harrow. One shows how to place a spring under the seat, so as to enable the operator to ride

comfortably over rough ground. The spring is 1½ inches long, and of 3-16 inch wire. Use a bolt about 3 inches long in place of the regular bolt thru the seat. The spring allows the seat to rock. This has saved me many a jolt.

The second drawing shows a hook for pulling grass and stubble out of a disk or gang plow. It should be made of ½ inch steel. Allison, Iowa.

Russell Bates.

June Weather at Manhattan

Altho the rainfall at Manhattan in June, 7.48 inches, exceeds that of June, 1915, by .74 of an inch, the month closed with ideal weather for harvest, according to a report prepared at the Kansas State Agricultural college by J. O. Hamilton, professor of physics.

The temperature for the month averaged 4 degrees below normal, the mean temperature being 70.4 degrees. The highest temperature was 92 degrees on June 30; the lowest was 43 on June 9. The highest June temperature at Manhattan was 112 in 1911.

Rainfall for April, May and June was 16 inches as compared with 18.18 for the corresponding period in 1915. The cool, moist weather early in June was unfavorable to the growth of corn.

There were 20 clear, 4 partly clear, and 6 cloudy days in the month. The average wind was from the west and no damage from hail storms was reported.

Dry Weather Aids the Work

(Continued from Page 18.)

fall during the day. Even as it is I fear that many poor horses will feel the effects of the long, hot days. The corn must be cultivated and the grain cut but it does not pay to kill a horse just to get an acre or so more done. Even with the best of care it often happens that the wind of a horse is injured, especially if the horse is heavy and fat and has been having the run of grass.

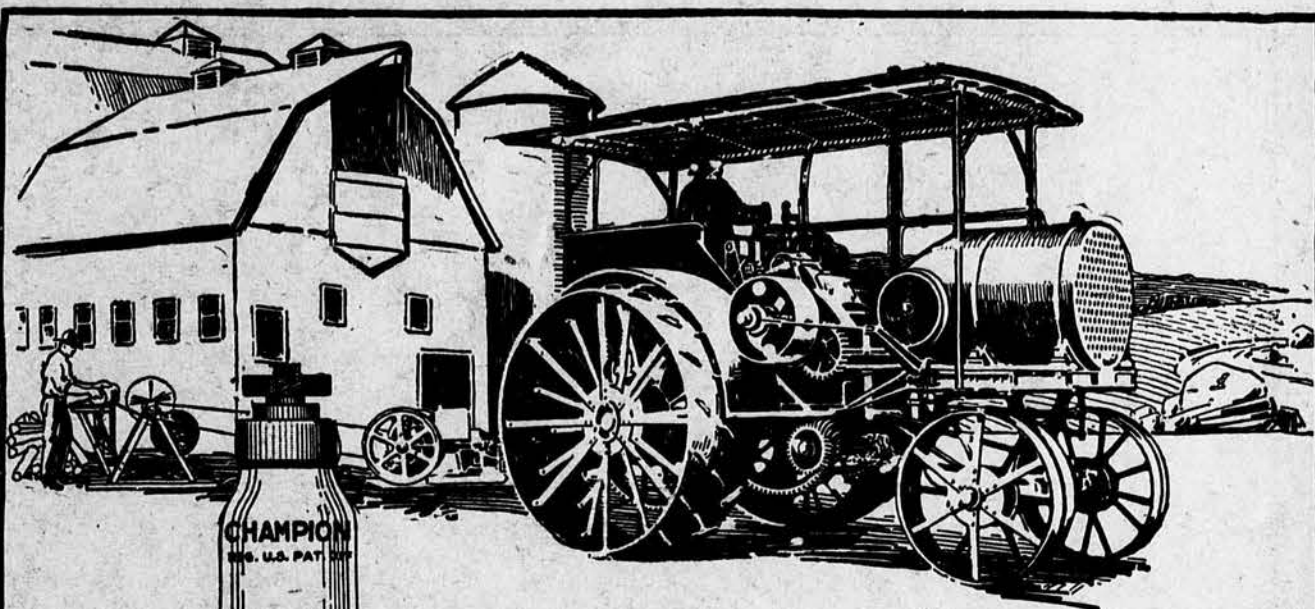
Part of our horses were kept up in the barn during the wet spell and fed grain and hay. They were used enough to give them plenty of exercise, of course, but they stood idle part of the time. The rest of the horses ran in the pasture and had no grain. They got as fat as pigs and looked better than the horses that had been kept in the barn but it was fat that soon melted when hard work on the cultivator and grain binder began. The horses that have been kept on dry feed stand the work by far the best: it cost more to keep them during the wet spell but the extra work they could do in the first week paid all the feed bills.

This is the ninth season in which we have used our grain binder and it worked just as well this year as during the first season. Not once has this machine ever "laid down" on us and if given a new sickle I cannot see why it should not run for many more seasons. We have had to buy a new under elevator canvas but that was because we used to cut flax with it. There is nothing that will ruin the canvas suit of a binder quicker than flax; used for wheat and oats alone the canvas will last until it fairly rots out but flax will ruin even the newest and best elevator canvas in a short time. I cannot help but compare the present day grain binder with the machine in use 25 years ago, but we thought the machines of that day were wonders of efficiency. Will the harvester of 1940 be as much ahead of that of today as the one we now use is ahead of the one of 1890?

How much longer will a machine like the grain or corn binder last for being kept in a dry shed? Probably opinions will differ as to this but it has always seemed to me that the life of such a machine is nearly doubled as compared with one that stands out in all the weather Kansas can furnish. Perhaps a machine used to the limit each year and which would be worn out by actual use in two or three years does not lose so much from weather exposure, but the machine kept on the average Eastern Kansas farm which cuts from 50 to 60 acres a year will last almost twice as long if it is kept in a tight, dry shed.

I have not seen a single field of flax this year. Ten years ago flax was one of the main crops here. It was a favorite with tenants who wanted "quick money" for it could be cashed in inside of 90 days after being sown. But as the price of other grain advanced flax did not keep pace and it soon became much less profitable than any of the other farm crops raised for sale. I imagine that all threshermen will be glad to note the passing of flax; it was of all grain crops the most unprofitable to put thru the machine. It was hard to cut, hard to cure and hard to thresh. I know of no one who regrets the passing of flax.

I think there is no better farm paper printed than the Farmers Mail and Breeze.—N. E. Hawk, Effingham, Kan.



Champion
Heavy Stone
7/8-18
Price \$1.25

The following Manufacturers Are Equipping their Tractors with Champions.

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| Buckeye Traction Ditcher Co. | Findlay, Ohio |
| Bull Tractor Co. | Minneapolis, Minn. |
| Bulldozer-Rider Tractor Corp. | Los Angeles, Calif. |
| J. L. Case Tractor Mfg. Co. | Racine, Wisconsin |
| Central Locomotive Car Wks. | Chicago, Ill. |
| Common Sense Gas Tract. Co. | Minneapolis, Minn. |
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| Emerson-Brantingham Co. | Minneapolis, Minn. |
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| Happy Farmer Tractor Co. | Minneapolis, Minn. |
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| Finley P. Mount, Rec'y | |
| M. Rumley Co. | LaPorte, Ind. |
| Toro Motor Co. | Minneapolis, Minn. |
| Wallis Tractor Co. | Racine, Wisc. |
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| Wilcox Motor Car Co. | Minneapolis, Minn. |

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Dependable Spark Plugs

**Give Your Machinery
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Farm tractors and Stationary Engines must stand up under a taxing grind from dawn till darkness—day after day.

Farm machinery that stalls or is only partly efficient is always annoying and frequently causes a serious money loss. Investigation shows that faulty spark plugs are often at the bottom of such trouble.

Champion Spark Plugs *can't* go wrong. They bring out the best your engine has—and put an extra "punch" and "go" into it.

And the countless explosions to which they are exposed do not crack or weaken Champions. They "stand the pace" unflinchingly—and never fail to deliver their sparks.

It is such reliability—such super-endurance—such all round ability to "produce" that has made Champions stand out supreme.

Four out of five of the stationary engines and tractors built in this country are now equipped by their makers with Champion Spark Plugs—a striking testimonial to Champion efficiency.

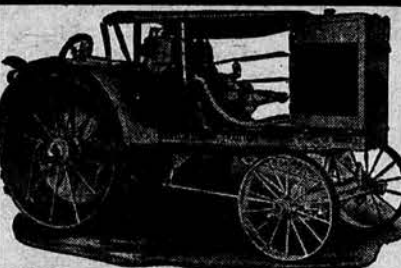
Be sure and get Champions when you replace your spark plugs.

Champion Spark Plug Company

511 Avondale Avenue

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SUCCESSFUL AT
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**"ALLWORK"
Light Tractor**

**Pulls
Three
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Easily**

A Four-Wheel Tractor
Dependable as a Horse

A simple, durable, powerful machine selling at a price you can easily afford. Equipped with four-cylinder vertical engine 6x8, developing 25 h. p. at belt, 12 h. p. at drawbar. Two-speed transmission working in oil, automobile type front axle, roller-bearing rear axle, steel gears thoroughly protected from dust and self-oiling, radiator and fan that cool absolutely, 16-inch face rear wheels, weight 4800 pounds.

A sensible, practical tractor, built by a company with an established reputation and numerous machines at work in fields today. Write for catalog.

Electric Wheel Co. Box 30A, Quincy, Ill.

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Until December 1st, \$1.00

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Send in your subscription NOW so that you may derive the full benefit of this special short time offer. Sign name below and mail to the Daily Capital today.

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Gentlemen: Enclosed find \$1.00 for which please send me the Daily Capital until December 1st, 1916, as per your special campaign offer.

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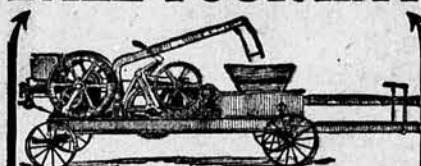
Solid steel construction. Sandwich Gas and Oil Engine, with magneto, mounted on same truck furnishes power. All designed and built in our own plant superior to assembled machines. Heavy steel chain transmission (no belt to slip). Simple self-feeder and block dropper. Turns out a continuous stream of solid salable bales. Starts or stops instantly. Best press for alfalfa. Horse and belt power presses also.

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This powerful all steel press is the real farm money maker. You make big profits when you can bale from 20 to 30 tons a day. 8 inch frame, no vibration, heaviest gears, wider feed opening, weight with engine 4100 lbs.

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This new throttling governor engine with built in magneto is regular equipment on the Eclipse Motor Press, without extra cost. You cannot afford to run a press with a gasoline engine.

Write Today for new catalog fully describing this Bigger, Lighter Running, More Economical Eclipse line. Will demonstrate press in your own locality.

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J. WYATT MFG. CO., 902 N. 5th St., SALINA, KANS.

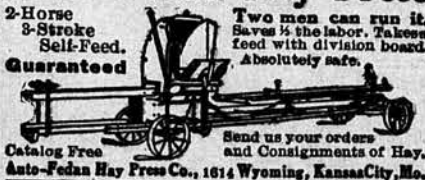
Easy Baling Admiral Motor Press

Leverage does the work, quick, smooth running, low up-keep cost.

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Beatrice Tent & Awning Co.,
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Union Pays With Machinery

Co-operation in the Purchase of Heavy, Expensive Farm Implements is Making Considerable Progress in Kansas

A BIG interest in the co-operative ownership of farm machinery has developed in Kansas. This has been created by the progress of the business. There is a need for a larger use of heavy machinery, especially since the development started with tractors. Much of this machinery is very expensive, and in many cases it is used for only a short time. A very favorable opportunity for co-operation in its ownership has thus been developed.

The rapid progress which all forms of co-operation have made in Kansas in the last two years has caused the farmers in many communities to consider co-operation in the ownership of machinery very carefully. This is just a development in efficiency, for as the American Thresherman has said the kinds of farm machinery held as co-operative property by American farmers are those which, because of the size of farms or of the limited amount of time for which such machines are used in the year, strike the individual farmer as too expensive for him to own outright. Machinery owned jointly by American farmers usually has to be moved from farm to farm. Moreover, the machinery, our farmers hold as joint property is the kind generally requiring the combined efforts of a group of farmers in its operation. The machinery fitting this description is such as traction engines, grain separators, baling or pressing machines, corn shellers, and shredders.

All machines jointly owned are co-operatively purchased, but all machines purchased co-operatively are not retained

its outfit for a different set of reasons than that which prompts the European farmer to desire co-operative ownership. The European farmer often has to resort to co-operative ownership so as to be guaranteed that there will be a threshing machine in his neighborhood, and is particularly interested in the saving which he can make by joining with his neighbors in such an enterprise. In America, however, private owners keep most communities supplied with threshing rigs. The American farmer, moreover, is not seeking to share in profits so much as to be certain he will have privileges in the use of the machinery.

Three Advantages.

The advantages that come to a threshing rig thru the ownership of its machine are at least three in number. In the first place, the nucleus of prospective owners can be made up in such a way as to deny the use of the machine to farmers whose grain regularly contains pernicious weeds. A private owner is not likely to refuse to thresh for a farmer who will pay for the service. Consequently weed seed may be widely distributed as a machine goes on its circuit. Co-operative owners can guard their farms against this.

A second advantage to farmers in owning their threshing outfit is that they can get the kind of machinery most popular in the community, and can guarantee that the machine will start each season in the best state of repair. The men to whom it is especially important can see to it that there is a thorough overhaul-



Co-operation in the Purchase of Heavy Farm Machinery is Making Considerable Progress in Kansas, and This Will be Continued Rapidly.

as joint property. In some European countries harrows, cultivators, mowers, plows, and other implements are purchased by farmers thru their own organizations. That practice seems not to appeal to American farmers. In this country the only prevailing form of co-operative purchase of farm machinery is that in which the machinery continues to be the property of the organization.

Many of the machines co-operatively purchased by European farmers are immediately distributed by the purchasing society to the individual farmers to be kept as independent property. In America, however, the co-operative purchase of machinery is an incidental aspect of its co-operative ownership.

Efficiency is Required.

Not only does the reason for co-operative purchase of farm machinery lie in the desire of farmers to hold the machinery as property of the organization. The desire for the co-operative ownership of the machinery usually results from the fact that the machinery is the kind that has to be operated by a group. This, perhaps, requires a little explanation.

Suppose we take threshing machines as an example. There are very few farms in the grain belt, except in the Northwest, where it is not necessary for the farmer to call in help when he wants to do his threshing. In many parts of the grain belt practically every farmer is a member of some ring or club, so organized as to supply threshing help systematically from year to year. These work rings aim to have the same machine used by all their members, and often have some kind of penalty to inflict on a member who goes contrary to the arrangement. The question arises in the course of time whether work rings should own an outfit co-operatively or continue to hire the outfit of a private owner. Many rings have given special consideration to this question in the last few months.

The American work ring wants to own

ing of the rig shortly before the opening of the threshing season.

A third advantage lies in the fact that farmers who own their outfits can thresh when they get ready. This is particularly important during a season like last year. When wet weather hangs on, the grain sprouts and rots in the shock, and the threshed product is often so damp that the elevators insist on a reduction in the price. The longer a farmer must postpone his threshing, the more he suffers from the fall commonly taking place in the price.

The American farmer is seeing the advantage of having the control of the machinery that threshes his grain. The advantage lies not in getting a share in an exorbitant profit that the uninformed might imagine private owners are making. The farmer knows that the average individual who runs a threshing rig gets his reward in the satisfaction of handling machinery and in the other enjoyments of the business rather than in exorbitant financial returns. Competition among private owners has reduced the possibility of large profits in most parts of the grain belt. One seldom, if ever, hears a grain belt farmer complain against the charges private owners make for the use of their outfits. What the farmer is trying to get thru co-operation is primarily an advantage in time. In every threshing season the farmer recognizes a short period in which it would be best for him to do his threshing. Sometimes that is a very short period, especially if the weather is bad. Competitive profits are so meager that only a limited number of machines can operate in a district.

Farmers often get together hurriedly and undertake the co-operative ownership of machinery without any kind of written agreement among themselves. Houses dealing in machinery subject to co-operative ownership would do well to supply the dealers with a memorandum of features that ought to be incorporated by the farmers in such an agreement. The agreement should contain the name

of the owning group, the method of stock ownership and transfer, the basis of voting, the scheme of organization, the occasion of meetings and their order of business, the order of using the outfit, and conditions under which machines owned by the group may be hired out to members for other than regular uses.

An agreement covering these items need not be long or elaborate. Farmers will not stand for involved contracts, being disposed to trust one another, and being too busy to fool with details. A brief contract, properly constructed, will, however, make an appeal to farmers. They can be made to see that it safeguards their individual interests.

The safety and success of co-operative ownership of farm power machinery is advantageous to the trade and to the farmers alike. Safety and success, however, are largely contingent upon written agreements insuring against the disruption of the organizations.

A Concrete Water Tank

BY M. R. KELLEY.

A good sanitary water supply is necessary on every farm. Where springs and running water are not present it is necessary to rely on wells and a tank big enough to hold several days' supply. Concrete is good material for such tanks. It is easy to handle, can be made in any shape or size, and is easily waterproofed. The sand and gravel necessary for constructing the tank are often found on the farm and if such is the case, the cost of constructing is materially reduced.

A good mixture for concrete tanks is 1 part cement, 2 parts sand, and 4 parts broken stone or gravel. If neither gravel nor broken stone can be obtained, a mixture of 1 part cement and 3 parts of coarse sand can be used. The cement and aggregate should be thoroughly mixed and the resulting mixture well tamped or shaded when placed in the forms. After removing the forms the sides of the tank may be flushed with a mixture of cement and water to smooth up any little irregularities.

Heavy woven wire fencing may be used to reinforce the tank. Lap the ends of the reinforcing at least 6 inches. The reinforcing for the walls should be placed near the outer side and well covered with concrete.

It is preferable to have the forms of green lumber. If seasoned lumber is used, it should be dampened with water before the concrete is poured into the forms. This will prevent the dry boards from absorbing the moisture from the concrete which, if permitted, would cause the walls of the tank to crack.

Make the bottom of the tank smaller than the top by sloping the inner walls. This will prevent ice from breaking the walls. The inner forms should be built so they may be easily removed. A wedge can be used to advantage if the forms swell and are difficult to remove. Avoid heavy pounding and prying as green concrete is cracked easily. While it is less difficult to build a rectangular form for the tank, the round type is stronger and calls for less concrete.

A band saw is best for cutting out the ribs for the round form, altho a hand saw will do very well. As it is a difficult task to cut them out in a circle, saw out a triangular piece, removing as much material as possible. Finish the circle by cutting out the remaining material with a good sharp hand ax.

The material needed for the construction of a 6-foot concrete tank which will hold 400 gallons of water includes: for outer form ribs, 3 pieces 2 inches by 10 inches by 14 feet; for inner form ribs, 9 pieces 2 inches by 8 inches by 12 feet; for outer form sides, 18 pieces 1 inch by 4 inches by 10 feet; for inner form sides, 14 pieces 1 inch by 4 inches by 12 feet; 10 sacks of cement; 20 cubic feet of sand; 40 cubic feet of gravel; and 36 feet of 30-inch heavy woven wire fencing.

SPECIAL CAMPAIGN OFFER.

Readers of the Farmers Mail and Breeze can receive a big Western Weekly during the Campaign of 1916 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 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 campaign offer—twenty-six big issues—10 cents. Address Capper's Weekly, Dept. M. B., Topeka, Kan.

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Visit the Great Tractor Show at Hutchinson, Kansas, July 24-28

The tractor show at Hutchinson in July, 1915, was the greatest event of its kind held up to that time. The 1916 Hutchinson show will again break all records. That's the Hutchinson and Kansas way.

Over 50 Makes of Tractors and Tractor Plows

besides other exhibits in great variety. If you saw the Hutchinson Tractor Show a year ago you will want to see it again this year. Great changes and great progress have been made during the past 12 months. All roads will lead to Hutchinson, July 24-28. Don't miss this most inspiring and instructive event. The tractor is not merely coming—it is here. Farmers must hereafter reckon with the tractor. Every effort will be made for the comfort and convenience of visitors. For information address

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Special advantages in Music, Art, Expression, Piano Tuning and College Courses. Only one tuition for College, Academy, Domestic Science and combined Business courses. Board, \$2.75 per week. Famous Messiah concerts every Easter. For catalog, write President, Ernst C. Pihlblad, Lindsborg, Ks.



INDOOR CLOSETS

WILL BE IN USE AT THE
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The management of the International Tractor Demonstration chose the Ro-San Closet because of its ease of installation. Also because it can be quickly installed where sewer connection cannot be had. Thousands bought the Ro-San closet last fall and winter. Thousands more will purchase this fall. No more need for the outdoor closet. It's a thing of the past. See the Ro-San at the Demonstration. Write for complete literature.

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Most Thrilling Story of Love, Mystery, and Adventure. By CHARLES GARVICE.

Unparalleled in interest, unequalled in its thrilling situations! Unsurpassed in dramatic intensity, this marvelous story of love, passion, mystery, intrigue and adventure holds the reader spellbound. From the pastoral beauty and palatial mansions of a northern clime, we follow hero and heroine, with breathless interest, to the sun-scorched, wild and arid plains of Southern Africa. On two continents we watch the battle between virtue and villainy—honor and rascality—justice and knavery. By the magic art of the author we are transformed from mere readers and become actual participants in a life drama of tremendous interest—a drama which stirs every fibre of our being and sends the blood coursing like a mill-race through the tense arteries of a spell-bound body. We will send you this great love story, handsomely bound with attractive cover design in two colors, free, by mail, postpaid, upon receipt of only 25 cents to pay for a one year's subscription to our big weekly paper, filled with world news, western news, great editorial features, departments and stories of interest to young and old. Send at once. Address, Weekly Capital, Dept. A.L.-11, Topeka, Kansas

Watch the Under Inflation

BY P. W. LITCHFIELD.

One often hears the argument that heat causes expansion of the air in a tire sufficient to produce a blow-out. Many motorists thus excuse their habit of running tires under-inflated. Even experienced garage men advise that tires be run at 15 to 20 pounds lower pressure in hot weather. We have to admit, of course, that heat does expand air and raises the pressure in a tire, but in its practical effect the rise in temperature is insufficient to cause even the slightest danger.

To satisfy ourselves on this point we recently made an unusually severe test, using a runabout equipped with 33 by 4 tires. We selected a day which according to the local records was the hottest June day ever recorded. The tires were pumped up to 80 pounds with the car standing in the cool of the garage. It was driven intermittently for about an hour, and when not running was allowed to stand in the sun. Then it was taken for a spin at 40 miles an hour over brick and tarred wood-block pavements. On measuring the pressure we found it had increased just 4 pounds.

So far as the welfare of the tire is concerned a difference of 4 pounds is really no difference at all. Tires are now built with such a high factor of safety that an increase in pressure of many times four pounds would not cause a blowout unless already ruined by overloading and under-inflation. We have often inflated up to 300 pounds without any damage to the tire.

The most serious variation in tire pressure is caused by leakage. Rubber is to a small degree porous and will allow air under pressure to leak thru it. A certain amount of leakage thru both tube and valve is normal and to be expected. Your pressure may maintain itself for a considerable time, but it is never safe to count on it. You cannot put it too strong that under-inflation, not over-inflation, is the condition to guard against.

The Law of the Road

The courts are laying down some emphatic but, withal, common sense rules or decisions for the guidance of automobilists, that spell safety for far more

Life is at its best in America in the well-equipped, modern, up-to-date rural community which has caught the community spirit, or in the equally modern, clean, well-managed and progressive small town. Vice, graft, disease, plunder are rampant in our big cities. Man-traps and pitfalls abound in them. Side by side are the slum and the palace, the saloon and the brothel, the sweat shop and the tenement, the jail and the reformatory, great wealth and extreme poverty, the master and the slave—noise, dirt, foulness, decay, glitter and sham. Against this the country offers independence, opportunity commensurate with industry, a competence and more, an American home, the respect and friendship of neighbors, a part and a place in the life of the community, health and happiness.

than themselves. Here is one from Justice Brooks of the Michigan supreme court:

"It is the duty of motor car drivers approaching railroad tracks, where there is restricted vision, to stop, look and listen, and to do so at a time and place where stopping, and where looking and listening will be effective."

The "stop, look and listen" rule must be observed, the high court holds, Justice Brooks quoting from a federal decision and applying it to the case of John N. Sanford of Battle Creek, who was struck by a Grand Trunk train in that city.

Sanford sued the railroad company and got a verdict of \$650. At the trial it was shown that he had stopped, looked and listened some distance from the tracks, but had not exercised caution when close to the railroad. The Calhoun circuit court refused to take the case away from the jury on the ground that Sanford had been cautious enough, frankly stating that the "stop, look and listen" rule should not be applied to

automobilists, for the reason that if the stop was a dead one the engine might be killed and a worse accident caused.

With this theory the supreme court, however, does not agree, reverses the case and spoils Sanford's verdict.—Motorview.

Motor Car Thieves Numerous

The secretary of state, J. T. Botkin, has sent out this letter to editors:

During the last year a very large number of automobiles have been stolen. Organized gangs make a specialty of stealing cars in this and surrounding states. It is almost unbelievable the number of cars stolen and never recovered. Something must be done to stop this crime.

Heretofore no index of the engine numbers has been kept by this department, as the law does not require it. For this reason it was impossible to find the engine number unless either the name of the owner of the car or the license number were known. The office is now keeping a card index to all cars registered by their engine numbers and taking other steps to prevent the theft of machines and to assist the officers of the law in its enforcement.

You can greatly assist this department by seeing that we have your correct engine number and description of your car, and by notifying this office promptly should your car be sold or stolen; also by promptly notifying us of any information or suspicions you may have concerning the theft of any car, or of any car thief. Any information of this kind will be treated as strictly confidential.

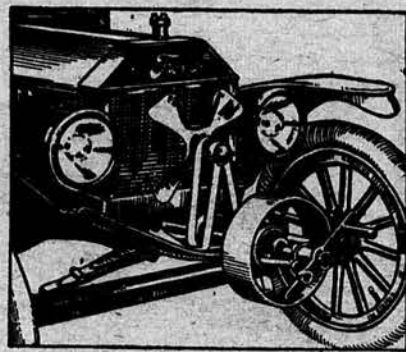
The automobile registration law has now been in operation four years. Time and opportunity have been given to discover its weak points, and to suggest needed changes in its provisions. The law has met with general favor from owners of machines, although a few have objected to any law whatever governing the operation and registration of automobiles. The number of cars is increasing so rapidly, not only in Kansas but all over the country, that in my judgment it is not likely that any state, and especially Kansas, will ever abandon registration.

If, as I believe, we are to continue to have an automobile registration law, we ought to have the very best that experience can suggest and that wisdom can devise. Our present law has worked pretty well, but experience has proved that it has a few weak places that ought to be strengthened. I expect to recommend to the next legislature some amendments to this law, and am asking you, as an automobile owner and therefore an interested person, for any suggestions you may have to offer relative to needed changes in the law.

During the fiscal year ending June 30, 1916, almost 90,000 automobiles were registered. This number probably will be increased to more than 100,000 during the present fiscal year. The money thus derived, if properly expended, will be of vast benefit to the highways of the state. I hope to have your hearty co-operation in an effort to see that these funds are properly and judiciously expended on the roads as the law intends.

A New Attachment for Your Car

The "Autopow" illustrated here comes all ready to attach to a Ford car by means of bolts already on the car. Not a single hole needs to be drilled. It will not injure or deface the car in any way and can be detached again and one would never know that it ever had been on. It takes less than 2 hours to make the first installation; after that, the frame can be taken off or put on in less than 5 minutes. The usual practice however, is to leave the frame attached to the car all the time, as it really adds to the appearance, then the driving shaft and pulley can be attached or detached in less than 2 minutes. The motor may be started



and the car driven on the road with the pulley and everything in place if desired.

The drive shaft connects to the front of the crank shaft thru a flexible joint or coupling, the pull of the belt is taken by the large bearing next to the pulley at the outer end of the bracket, so the motor gets none of this strain. The pulley runs loose on the shaft, so the belt may be slipped on, then the load engaged by throwing in a clutch which grips the pulley.

It will not strain the motor or cause it to over heat any more than driving the car on the road; an extra fan in front of the radiator keeps it cool. There is no more wear on the car than you would get driving on the road about 15 to 20 miles an hour, in fact the only wear is on the motor.

Give Wire Cuts Prompt Care

All barb wire cuts deserve immediate attention and should be cared for carefully until healed, says R. R. Dykstra, professor of veterinary surgery in the Kansas State Agricultural college.

The first thing to do after an animal is cut, is to control the bleeding. If the cut is on a limb a bandage should be applied tightly between the wound and the heart so as to check the outflow of the blood. If the wound is only slight a layer of cotton should be applied and held firmly by a bandage.

After the bleeding has been checked the next thing to do is to cleanse the wound carefully with some antiseptic such as a 2 per cent solution of carbolic acid and water. If there are any loose shreds of tissue or skin they should be cut off with scissors.

If the wound is small it should be dusted with a veterinary dusting powder and a layer of cotton applied and held firmly against the wound with a bandage. This treatment should be repeated at least once a day until the wound is healed enough so that it can be left exposed to the air without danger of being contaminated or easily broken open.

If it is a large or deep wound, in addition to the foregoing treatments, the edges of the wound should be drawn together by stitching. In stitching, the lower part of the wound should be left open so that the wound secretions and pus will find a ready exit.

If the wound is a deep one or in the vicinity of a joint it is serious and a reliable graduate veterinarian should be consulted.

Have You Good Papaws?

There is a growing interest in papaws. Among the wild trees along the creeks and in the underbrush of the river bottoms, there must be many a seedling which combines superior quality with a tougher skin and greater firmness than usual. Probably farmers have picked out some of these trees and transplanted them to the orchards. The American Genetic Association wishes to locate these superior trees, in order that they may be made available for rapid propagation; and a member has given \$100 as a stimulus to the search for the superior specimens.

Two rewards are offered from this fund. Fifty dollars will be paid for the largest individual tree, and \$50 for the tree, regardless of size, which bears the best fruit. The offer will terminate January 1, 1917, thus including the coming crop-season in which farmers can watch for superior specimens. Farmers who wish to enter this contest with their papaw trees should write to the American Genetic Association, 511 Eleventh Street N. W., Washington, D. C.

A Big State Fair

The Iowa State Fair at Des Moines, the first of the fairs in the cornbelt and, next to the National Swine Show at Omaha in October, without doubt the

biggest swine show of the year, will be held August 23 to September 1. A total of \$5,430 in cash premiums in the swine department is offered this year. The premium list is out and a copy may be had by addressing A. R. Corey, secretary, Des Moines, Ia. Cyrus A. Tow of Norway, Ia., is superintendent of the swine department.

As to Tire Inflation

The owner inevitably has the question of sufficient air pressure to give long life to tires, on the one hand, and not too great pressure to give easy riding on the other hand, and motorists are prone to allow their tires to run a little bit under the proper pressure for the sake of easier riding qualities. When this is done, the motorist simply is utilizing his tire to perform the functions that the springs and shock absorbers should perform. Tires are not meant to do this work. Rubber and fabric cannot take the place of steel. When the tire casing is allowed to run soft enough to take up the road shocks that the springs should absorb, there is a constant flexing of tread and fabric which inevitably will cause disintegration and separation between the layers, and which in time will result in the utter destruction of the body of the tire.

Tire manufacturers are almost unanimous in stating that their tests have shown that a great deal more damage to the tire is occasioned by endeavoring to compensate for the difference in pressure caused by increase in temperature of the tire thru lower inflation in the summer time than would be caused by such increase in pressure itself. This increase is so slight that it need not be taken into consideration. It is almost negligible from the viewpoint of the car owner.—The Auto Era.

Heat and the Horses

Sunstroke is caused by the direct rays of the sun falling on the skull. A horse so affected may die suddenly as the stricken with apoplexy or he may have a gradual paralysis of respiration. The symptoms which usually present themselves are restlessness, pawing, spasms and a marked redness of the mucous membranes lining the cavities of the head. The temperature in sunstroke may not rise above normal during the whole course of the disease.

Another condition very similar to sunstroke is that known as heat stroke or heat exhaustion. This is brought about by over exertion and insufficient heat elimination. The direct rays of the sun are not responsible for this affection, which very often occurs to an animal on a cloudy, sultry day. Some of the more prominent symptoms of heat stroke are weariness, profuse sweating, difficult breathing, an extremely high temperature, and a rapid pulse, which gradually grows weaker and upon the approach of death muscular tremors will be noted. The treatment for sun stroke and heat stroke are the same. Remove the animal to a cool, quiet, well-ventilated

place and permit a stream of cold water to flow over the horse and if possible apply ice packs to the head. If ice is plentiful apply it all over the body.

Sudan Grass at Wallace

Sudan grass has done very well for us. I am sending you a picture of the



Sudan Grass on Upland.

crop grown last year on the uplands without irrigation. This was sown at the rate of 12 pounds an acre with a drill. We will sow about 120 acres of Sudan grass this year.

Wallace, Kan. E. J. Guilbert.

Sowing Sudan Grass Seed

Sudan grass will be more generally grown this year by the farmers of Lyon county than ever before, according to the reports coming from office of the county farm bureau, says the Emporia Gazette. Sudan grass has proved a successful substitute for alfalfa in Lyon County. Many farmers last year supplemented Sudan grass for alfalfa, and planted the dead spots in the alfalfa fields with the newer crop. Both were cut at the same time and harvested together. One farmer had a field of three acres of Sudan grass last year from which he fed five cows all season, according to H. L. Popenoe, county farm agent. "Sudan grass has shown up well in Lyon County as a hay crop," he said today. "The first crop will be ready to cut in about 60 days, and the second crop thirty days later."

J. A. Rankin, manager of the Emporia Elevator & Feeding Company, which company feeds thousands of sheep every season, has planted a large acreage in Sudan grass this year. He made a comparison between this crop and alfalfa, and says it is as good or better for feeding sheep. His first crop last year yielded 7½ tons and the second crop yielded 2¼ tons an acre.

Let's Show What We Grow

(Continued from Page 12.)

"without getting the other hogs like you see in the background. I have six like the pig next to its mother. The two little sows shown are the smallest in the bunch."

I'm still waiting for a picture showing Chester Whites and Berkshires. What's wrong with you fellows, anyway? As we say on the coaching lines, "Show a little life, fellows, show a little life."

Buy Implements Now

Buy farm implements now and avoid probable price increases, is the advice of F. A. Wirt, instructor in farm machinery in the Kansas State Agricultural college.

"Even if the war should close in the near future," says Mr. Wirt, "the price of steel is expected to remain extremely high for several years and the prices on implements may go even higher than at present."

"Before the war the steel mills were by no means working to their capacity, and the implement companies had their orders in for steel and other materials far in advance of their needs. After the war began, however, the belligerents demanded the entire output of the American mills, so that the price began to advance rapidly. Several implement companies could not get the steel they had contracted for long before when it was required."

"Some steel parts increased in price several hundred per cent. Today there is hardly a piece that goes into a plow that has not advanced more than 20 per cent. It is rumored that another increase in price will go into effect soon—in fact some of the companies have already raised their prices an additional 10 per cent. There is no reason to believe that they will be more able to obtain moderate priced steel in the future than they have been in the recent past."

It must be borne in mind that the steel makers have hundreds of thousands of tons listed on unfilled orders, Mr. Wirt says. In addition to the present tremendous demands made by the warring nations upon the steel output of the United States, it must be remembered that the ship-building industry has shown a remarkable revival, and that a vast number of buildings, bridges, and many other structures will have to be replaced after the war.

Cautions from Crumline

Bad housing is productive of bad health.

Sags in roof gutters may act as mosquito breeding places.

Remember "Clean-up and paint-up week," and keep it wholly.

The unfly-proofed outside toilet is the season's greatest danger.

There is a Jewish saying that God could not be everywhere, and therefore made mothers.

There is something better than making a living—making a life.—Abraham Lincoln.

"To cure is the voice of the past; to prevent is the demand of the future."—Buffalo Bulletin.

It is among the evils—and perhaps not the smallest—of democratic governments that the people must feel before they will see. When this happens they are aroused to action.—Washington.

"Window is derived from two words, wind and eye—namely, an eye or hole in the wall for the wind to enter." In this connection, we might spring the modern injunction, "Keep your eye open."

BIG PROFITS FOR COLUMBIAN BIN OWNERS

\$200 To \$800 CLEAR PROFIT FROM EACH 1000 BU. BIN

That's just what we mean, \$200 to \$800 clear profit on every 1000 bushels of grain stored in Columbian Metal Granaries. Thousands of farmers did this last year and you can do as well with one of these Wonderful Grain Bins. There's no chance to lose. Prices always advance and many predict \$2.00 wheat before the year ends.

COLUMBIAN METAL GRAIN BINS built to last a lifetime. They will pay for themselves the first year and show a big profit besides. After that every cent they make you is clear gain as there is no extra expense for up-keep. They are made of the best grade of galvanized metal and black steel enameled. They cannot collapse, blow down or burn up.

DESCRIPTION Both roof and walls are made in sections. Our patent reinforced joint prevents bursting when full and makes erection so simple that you can do it yourself in a few hours time. All bolts, tools and instructions are shipped with the bin.

The roof is sag-proof, leak-proof and self-supporting. The sections are joined by means of our special box joint which makes assembly easy and adds much to the appearance of the finished bin. Every bin is equipped with a large 6-ft. by 2-ft. entry door, also removable door board, sacking spout, collapsible scoop board, one ventilating tube.

You can mount these bins on platforms and haul them out to the threshing to be filled direct. This saves all the expense of extra teams, sacks and labor at threshing time. This saving alone will pay the cost of the bin.

COLUMBIAN STEEL TANK CO.
1605 WEST 12TH ST. KANSAS CITY, MO.

SEND NO MONEY Just fill in the coupon, get our low freight prepaid prices and Free Grain Bin Folder. It has full details as to how you can make the big extra profits by storing your grain, beating the speculator at his own game.

Our manufacturing capacity is a grain bin every four minutes. This insures shipment of your order the same day it is received.

Decide now to own a Columbian Metal Grain Bin. You can then laugh at threshing time prices. If your dealer doesn't sell them we'll ship you direct on our Special Send No Money proposition. If you want to get the full value for your wheat crop, then—

SEND THIS QUICK

Columbian Steel Tank Co. "C"
Kansas City, Mo.

| | | |
|----------|-----------------------------|---------|
| Please { | 500 bu. Enam. Bin \$ 80.00 | We pay |
| Ship { | 1000 bu. Enam. Bin \$110.00 | freight |
| | 500 bu. Galv. Bin \$ 88.88 | |
| | 1000 bu. Galv. Bin \$123.00 | |

In states of Iowa, Nebraska, Kansas, Oklahoma, Arkansas, Missouri and Illinois.
I would like to have your Grain Bin Folder.

Name

P. O.

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Send Bill of Lading to

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SEE The Reinforced Joint



Five-Passenger Touring Car, a beautiful example of the full stream line yacht type.

Built for Service

Each ELCAR is built for a long life of satisfactory service—built to outlast other cars in its price class, and by a concern which for 43 years has manufactured only quality products. In beauty of design and finish, in mechanical excellence and proven performance, it rivals cars selling at \$1000 and more. Dollar for dollar we believe it represents the best value on the market today.

ELCAR \$795


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Silent, powerful, long stroke motor (3½x5)—unit power plant, 3-point suspension—114-in. wheel base—full floating rear axle—Dyneto double unit starting and lighting system—Delco ignition—unsurpassed body designs—roomy seating for every passenger—full Turkish style upholstery—every equipment that goes to make a car at any price complete. Write for catalogue.

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"Clover Leaf" Type Roadster, seating comfortably four passengers.



PIERCE GALVANIZED SILO ROOFS

Entirely Self-Supporting—No Rafters

Put a Pierce Gambrel roof on your silo when you fill this Fall. It will pay for itself the first year. This roof will not increase the volume of ensilage per acre, but will preserve the ensilage and give greater feeding value. Too much rain on ensilage is detrimental. Prevents freezing and prices.

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Preserve Your Lumber Silos, Shingles, Fence Posts

CURRY PRESERVER. The highest grade of refined Creosote which has been successfully used for over 25 years, will insure your Lumber, Silos, Shingles, Fence Posts, etc., against Rot and Decay. One application of CURRY WOOD PRESERVER (a boy can do the work), will give longer life to your Lumber at less cost.

Add to Your Farm Profits by Reducing Your Expense

The large Railroads, Telegraph Companies, Factories, etc., have for years been successfully and profitably using wood preserver for their Ties, Telegraph Poles, Floors, Platforms, etc. You can now get the same Preserver in small quantities for use on the farm. The number of uses to which you can profitably put CURRY PRESERVER will surprise you.

Write us for complete details, full directions, price list and useful interesting literature. Complete particulars including list of uses free.

CHAS. C. CURRY & CO., 2145 RAILWAY EXCHANGE BLDG., ST. LOUIS, MO.

31 Piece Dinner Set

FREE



FREE

Does Not Cost One Cent—All Freight Charges Prepaid

If you would like a beautiful 31 piece dinner set, here is your opportunity to get one absolutely free of charge. These dishes are given only to members of the Household Dish Club, but you are eligible to membership in this club if you wish a set of the dishes. The set consists of six plates, six cups, six saucers, six fruit dishes, six individual butter dishes and one large meat platter. Each piece is decorated with a cluster of beautiful wood violets, surrounded by green foliage and around the edges is a lovely tracing of pure gold. The ware itself is a first grade pure white and absolutely flawless. Space does not permit us to give you a detailed outline of the plan of the Household Dish Club. We will say however, that if you want a set of these dishes you can secure them on our special offer without one cent of cost to you.

How to Join the Dish Club

If you wish to become a member of the Household Dish Club, send us your name and address and we will then send you illustration of the dishes in colors and full information about how to secure these beautiful dishes free.

Household Dish Club, Dept. 56, Topeka, Kan.

When answering ads mention this paper

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Divided Into 6000 Shares
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The history of the Kansas-Oklahoma Oil fields are those mostly of great success. This field stands today as one of the greatest oil and gas fields of the world. The multiplicity of purposes for which gas and oil are now being used has raised the price so that successful production is highly profitable. In our home field we find our most active financial men supporting and encouraging legitimate speculation. Only a fraction of the field has been developed and its future limitations are largely speculative. I want to tell you the story of some of the most successful operations and have incorporated in my little pamphlet

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some interesting facts and data that I believe will result to our mutual profit. We are chartered and operate under the **Blue Sky Laws of Kansas** the most stringent laws made to protect the investor from illegitimate concerns. The Kaffir Queen Oil and Gas Company has very promising leases in good territory—we regard it as a fine speculation and we believe its future to rest on a solid foundation. If we are reasonably lucky—you will be assured of one fact, a good square run for the amount invested. Write today.

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203-204 Caldwell Bldg., Wichita, Kan.

Sunday School Lesson Helps

BY SIDNEY W. HOLT.

Lesson for July 23. Paul at Corinth. Acts 18:1-22.

Golden text: Be not afraid, but speak and hold not thy peace. Acts 18:9.

Corinth was one of the famous cities of Greece, situated on a narrow isthmus in one of the southern provinces, about 50 miles from Athens. At one time it was noted for its sculpture, painting and works in bronze. Having an excellent position commercially, with its two ports, it became the gateway between Rome and the far East. Nero added to its importance by building a canal across the isthmus. The climate was delightful and in 51 A. D. the population was near 400,000.

It was a colony without traditions, aristocracy or well established citizens, being made up of a floating class of people from all countries. A mass of Jews, ex-soldiers, Greek adventurers, Roman bourgeois, philosophers, merchants, sailors, slaves and freedmen, ran riot in the streets. The very name of Corinth became a synonym for reckless debauchery. The foulness from the different sects and nationalities, consecrated by the religious rites of their false gods, led to shamelessness and immorality.

Paul arrived at Corinth early in September, A. D. 51, ill and discouraged from his recent failure at Athens, and doubtful of what his success would be in Corinth. In seeking for a place to stay, Paul found the home of Aquila, a Jew, and Priscilla, his wife, open to him. It is evident that Aquila was already a Christian and that Priscilla was a Gentile proselyte. They had been living in Rome until the decree of the Emperor made them leave. They came to Corinth and were engaged in the business of tent making, the same trade that Paul followed.

Paul went as was his usual custom, on the first Sabbath, to the Jewish synagogue, where he had but little success in his teaching. He was greatly discouraged but the arrival of Silas and Timothy from Philippi, Thessalonica and Berea, with the good report of the work

To combat the investigation of the packing industry, one of the companies presents a statement from its books to prove that for 15 years it has made less than 25 cents a head on hogs and 75 cents on cattle. The question at issue is not one of packers' profits, merely, their profits are not considered imperiled, it is whether the Meat Trust manipulates prices and markets, and why stock growers are ruined while the packers prosper whatever the conditions. An explanation which does not explain that, is an explanation that does not explain.

accomplished by his former churches, their messages of faith and love and the gift from the Philippian church gave him a great deal of comfort and cheer.

Paul realized that nothing further could be done with the Jews, while they were in this contemptuous scornful mood and in true Oriental manner he left them and entered the house of Titus Justus, where he established the Christian church of Corinth.

Titus Justus was not a born Jew, but a proselyte and a Roman citizen. His home, being near the synagogue was an invitation for all to enter and was open alike to Greek, Hebrew and the educated Roman Corinthians.

With the conversion of Crispus, the chief ruler of the synagogue, came the turning point for the success of the Christian religion. Paul personally baptized Crispus, which was something unusual for him to do.

As the Christian religion spread among all classes of people, the hostility of the Jews increased, until they finally made accusation against Paul relating to the Jewish customs and laws and took him before the proconsul Gallio, who without waiting to hear Paul's reply to the charges, cast the accusation out of court, declaring the Jews had no case. Paul having the protection of a Roman citizenship had not violated any Roman law and Gallio clearly defined the line of illegality between the Roman Empire and the Jewish law. In crimes or misde-

meanors Gallio was ready to listen to evidence, but in the matter of religious rituals the Roman State would not interfere. The decision was true to the Roman principles of universal toleration where religion was not used as a pretext for sedition, and was important in that it gave Paul an open door to the civilized world and freedom of religious speech thruout the Empire.

Paul was with the Corinthians over a year and a half when he set sail from the east port of Corinth. He touched at Ephesus, but landed at Caesarea on the coast of Palestine and went up to Jerusalem to greet the Church and then down to Antioch, completing his second missionary journey.

Thinning the Fruit

BY F. W. FAUROT.

Thinning is an operation that has been practiced to only a very limited extent. An occasional man has thinned a few trees, more as a matter of curious inquiry than as a definite orchard practice. Where the operation has to any degree been carefully performed the results have been outstanding and it has paid well.

Those varieties which tend usually to overbear and produce under sized fruit may be thinned to a profitable advantage. The size and quality of such varieties as Winesap, Missouri Pippin, Ralls, and Ingram can almost always be improved by careful thinning, and it will often pay to thin such varieties as Jonathan, Grimes or York.

The quality of well-grown fruit is always superior to that which is small and poorly developed. If the crop is evenly distributed thruout the tree, perhaps 4 to 8 inches, according to size of variety, is a good distance between fruits. Leave only one fruit on a spur. If two are left, both will be wormy. On trees with a heavy set of fruit, thinning all the fruit from part of the spurs tends to cause such spurs to develop fruit buds for the next year's crop, thereby encouraging regular bearing. The earlier the work is done the less drain there is on the vigor of the tree. Surplus fruit can be handled at less expense by thinning than by running it over a sorting table at packing time.

Trees Planted With Machine

A machine which plants from 10,000 to 15,000 forest tree seedlings a day is now being used at the Letchworth Park Forest and Arboretum in Wyoming County, N. Y., according to officials of the Forest Service who are acting as advisers in the work. Previously the planting has been done by hand at the rate of 1,200 to 1,500 trees each day a man.

The machine was designed to set out cabbage and tomato plants, but works equally well with trees. It is about the size of an ordinary mowing machine and is operated by three men and two horses. One man drives the team while the other two handle the seedlings. The machine makes a furrow in which the trees are set at any desired distance, and an automatic device indicates where they should be dropped. Two metal-tired wheels push and roll the dirt firmly down around the roots. This is a very desirable feature, it is said, because the trees are likely to die if this is not well done. Two attachments make it possible to place water and fertilizer at the roots of every seedling. Another attachment marks the line on which the next row of trees is to be planted.

No cost figures are available, but officials say that the cost will be much less than when the planting is done by hand. It is said that the machine can be used on any land which has been cleared, and is not too rough to plow and harrow.

About the Motor Cars

Did you know that there are 3,114,300 automobiles in the world? That of these 2,400,000 are in the United States? That American makers have contracted material for a 1,200,000 production in 1916? Of the 1915 output the American farmer bought more than 70 per cent of the car production and he paid 60 per cent of the total cost.

Keep nests free from filth, and provide plenty of them. It is the foul, dirty, unattractive nest that causes the hen to seek the weeds or some other undesirable place.

For a Big Wheat Crop

(Continued from Page 9.)

hardy, winterkills less, the young plants apparently have a more extensive root system and the wheat ripens from three to five days earlier than the ordinary strains of Turkey wheat. Seed of this variety is not available for general distribution this season. It should be available in the summer of 1917.

"Another strain of pedigreed wheat just developed and of which there is a limited quantity of seed available for distribution is the Pedigree 706 or Improved Turkey. This variety has slightly surpassed the P-762 in yield at this station. The average yield of this variety for the five-year period 1911-1915 has been 30.6 bushels, compared with 30.1 for the P-762 and 27.4 as the average yield for common Turkey. It is because of the excellent showing of the variety at this station that it has been increased more rapidly and is thus ready for distribution at this time. The yield of this variety has not been so good, however, as the P-762 in the co-operative tests in Central Kansas altho it has on the average proved much better than the Turkey, Kharkof, or the other varieties of local wheat grown on the farms where this variety has been tested. This variety has also proved hardy and early maturing but it is apparently better adapted to the eastern part of Central Kansas than to the western part.

"Limited quantities of seed of this Improved Turkey, P-706, can be supplied by the college at \$1.50 a bushel, f. o. b., Manhattan. The wheat will be cleaned and graded and this price includes sacks. The college also can supply pure seed of the Kharkof and Turkey varieties at the same price. These varieties of wheat are all hard red winter varieties and are not recommended for Southeastern Kansas or for the bottom land or rich, fertile upland of Northeastern Kansas where the soft varieties such as Fulcaster, Zimmerman, Currell, Fultz, Harvest Queen, Miracle, and Red Sea give the best results."

It is obvious that care is required all the way along the line in wheat growing in Kansas. Better yields can be obtained by this care, and it will pay well to give it. Wheat growing needs to be placed on a more substantial basis. Probably the big thing needed to bring this about is to reduce the acreage of wheat land to the point where it can be handled with the help that is available. If these good methods are used the present production can be maintained with a much smaller acreage.

Hold for High Wheat Prices

(Continued from Page 17.)

of wood, while others are expecting to buy bins that already are made up. An important advantage of buying bins that come ready to put together is that the labor of construction is reduced greatly, and this is an important thing when the midsummer rush comes with farm work. These bins are made in the factory where the labor cost is reduced to the minimum, and the cost in some cases is less than 12 cents a bushel of storage capacity.

No matter what storage system is used, the important thing is to hold the wheat for the higher market. This will enable the growers to get all the profit. Taken as an average, year after year, it pays well to hold the wheat until the higher prices of the fall and winter are paid.

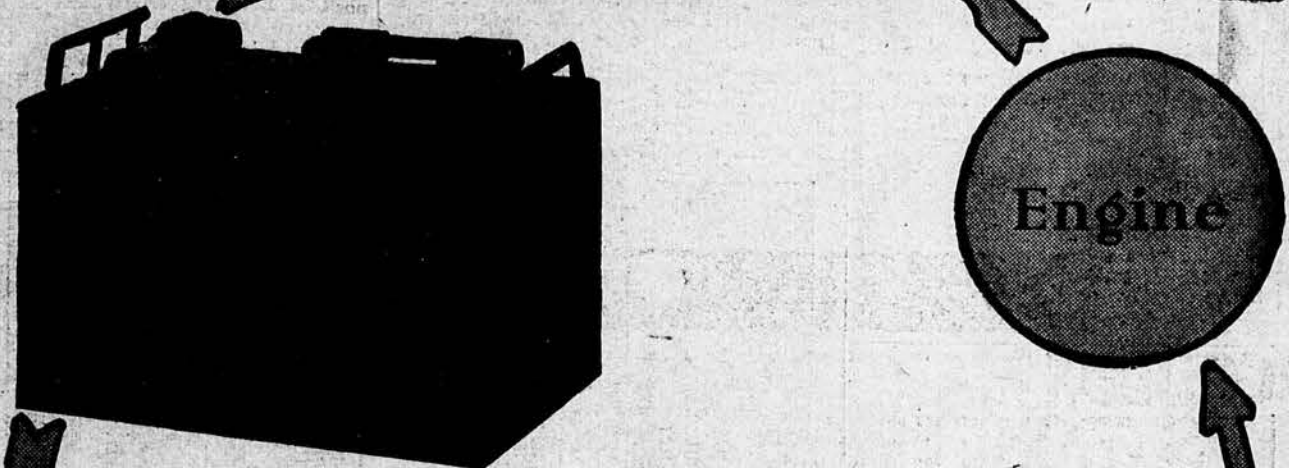
It Wasn't Blackburn

W. E. Blackburn didn't write the rhapsody about June, after all. It was written by K. P. McCulloch, editor of the Anthony Bulletin, and he wants the proper credit for it. The piece about June was printed in this paper two weeks ago. Having had various annual messages from Mr. Blackburn, usually about the beauties of autumn, we jumped to the conclusion that the same author was taking a fall out of June for a change. But no sooner had the piece been printed than Mr. McCulloch admitted its authorship. So this is the proper credit, the apology and the amend honorable. Anyway, it was good enough to have come from Mr. Blackburn.

You can never tell. Genius sometimes wears clothes that fit.

What's your preparedness against fire?

Willard STORAGE BATTERY



If ONE Goes Wrong—

Your starting and lighting system works like a team of horses—if it doesn't pull together you have trouble.

Every part in that system is dependent upon the other parts. Battery must be able to operate starting motor. Starting motor must crank the engine, regardless of hot or cold weather. Engine must drive the generator smoothly at all speeds. And generator must manufacture current to go back into the battery.

So you see how important it is that you have all these parts in working condition at all times. Your starting and lighting is bound to be good if you know how the system works.

Write us for a copy of the booklet F-19. It's free and may save you expense later on. Maybe you'd like to have a list of Willard Service Stations—we'll send that, too. It will tell you where to go if you want expert battery service. Write today.

Willard Storage Batteries are for sale by car dealers, garages, and all Willard Service Stations and Factory Branches.

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Chicago: 2524-34 So. Wabash Av. Minneapolis: 36-38-40 So. 10th St.
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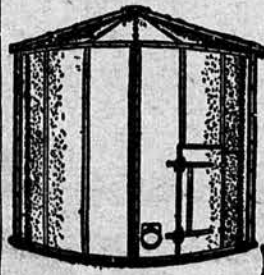
Requires only a 2 H.P. engine. Save \$5 to \$10 per day. Weighs only 400 lbs.

POWER MIXER \$39.50

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Strongest, simplest, largest capacity, low-priced Cement Mixer ever sold. Drum capacity nine cubic feet. Mixes Concrete, Feed Fertilizer, etc. Guaranteed to satisfy or Money Refunded. HAND MIXING OF SAME PORTLAND CEMENT FOR \$19.50. PAYMENT MADE ON ALL OUR PRODUCTS. Handsome book "Concrete in the Country" free with each mixer.
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THE ENGINE EASY TO RUN
Uses Kerosene, Gasoline, Distillate, Gas and other cheap fuels. Built to last and do hard work. Many sizes; Up-to-date design. Good Materials. Built by painstaking workmen. Sizes 1 1/2 to 25 H.P. Full 1/2 to 1/4 over rated horse-power. 3 Months Trial. Sold direct. 10 Year Guarantee. Engine Hook Free.
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CHUBBUCK'S IDEAL GOPHER TRAP
Larger than runway; jaws pull rodent in; catches large or small gopher and holds it. Farmers say it's worth dozen other makes. Big sales. Price 50c. If not at your dealer's will send it to you postpaid; 2 for 95c; 6 for \$2.70; 12 for \$5.10. Money back if you are not satisfied. Free circulars.
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Burglar-Fire-Rain-and Rat-Proof

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Write now for our circular and prices.

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the most important thing is how you'll heat it. And then select a furnace that gives top-notch service year after year.

Weir All-Steel Warm-Air Furnace
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gives scientific combustion at a fuel saving of 33 1/2%. It's the cleanest, healthiest furnace you can use.

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Spreader shipped from Waterloo, Iowa, Kansas City, Council Bluffs, St. Paul and Chicago

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ABSORBINE, JR., the antiseptic liniment for man and horse. For Boils, Bruises, Old Sores, Swellings, Varicose Veins, Varicocelics, Allays Pain. Price \$1 and \$2 a bottle at druggists or delivered. Will tell more if you write.

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Baird's Heave Remedy permanently cures heaves or your money is refunded. Give Baird's Heave Remedy in animal's feed and keep it working. If one package fails to cure send for your money. Write for free descriptive matter.

BAIRD MFG. CO., Box 712, Purcell, Okla.

For Better Farm Drainage

A vast amount of damage is done almost every year by the overflow from the creeks in Kansas. The main reason for this is that too little attention is paid to keeping the streams clean and free from obstructions. More of an effort along this line is needed. In addition more attention to straightening the streams also will pay well. There is a great deal of interest in this in eastern Kansas where the forming of drainage districts is being considered. H. B. Walker, state drainage engineer, has been on this drainage work much of the time in the last few months—there is far more interest than ever.

The farmers along the Stranger creek in Leavenworth county are considering clearing out the channel. This is needed, for much damage has been done by the overflows. There is a vast amount

come so porous that only the hardest rains will cause washing. Heavy soils should be plowed 7 or 8 inches deep instead of 4 or 5 inches, as many farmers plow them."

Much of the loss of soil from Kansas fields would stop if a logical system of crop rotation were adopted, as this would tend to improve its physical condition. One-crop grain farming rapidly reduces the supply of humus in the land, and it soon gets in bad physical condition. This makes the conditions very favorable for a wasteful soil washing.

When Blasting the Stumps

Some men pay no attention to the kind of soil the stump stands in when they go to remove it with powder. This is a mistake, because different treatment is required in light and heavy soils and in wet and dry soils, to in-



A Dam Formed Mostly from Drift Wood in the Stranger Creek in Leavenworth County, Where a Drainage District Has Been Proposed.

of drift along the creek, such as is shown in the picture. A dam of this kind prevents the rapid movement of water, and makes overflows almost certain in times of heavy rainfall.

Watch the Soil Washing

There is a vast loss in Kansas every year from soil washing. It is much greater than is generally realized, and this was especially true last year. This washing may be much reduced if the land is handled properly. It is extremely important that the humus supply should be maintained. In speaking of reducing the loss from soil washing, L. E. Call, professor of soils and crops in the Kansas State Agricultural college, said:

"All land that is rough and hilly and washes badly should be put down to permanent grass or meadow. Land can be cultivated for a year or two after being in grass and then again reseeded, and kept in grass or meadow for a number of years. Some farmers practice putting the worst part of the slope in grass or hay and cultivating above and below it. Often hillsides that will become worthless under continued cultivation can be made to produce profitable crops of alfalfa or grass.

"The best way to prevent soil washing on lands that are somewhat rolling, yet too valuable for permanent pasture, is to practice deep plowing and keep an abundance of organic matter in the soil. The run-off on an ordinary slope is governed chiefly by the physical condition of the soil. If the land is plowed deeply to give a deep, loose furrow slice, and plenty of humus is supplied from barnyard manure, crop residues, and green manuring crops, the soil will be-

sure the best results, and even to insure success.

The ideal blasting conditions are a water soaked clay, when the temperature is high. Powder will do its maximum under such conditions. As the soil character departs from this, and becomes light loam, or sand, and becomes drier, the powder is placed more and more at a disadvantage, because it has no firm support back of it. If you consider that the gases act a good deal like a pry to which a solid foundation is necessary, you will comprehend how essential is a solid earth backing for the powder gases when they are to remove the roots of stumps.

In wet clay you can use the smallest charges, and place them close to the wood. If the ground is lighter, or drier, you must place the charges somewhat deeper, in order to hold the gases to their work instead of passing to the air above right through the earth. Consequently, they must be larger. In light ground that is dry, several light charges fired at the same time with an electric blasting machine are likely to be much more effective than one heavy charge. If the roots are far underground, in dry ground, the charge should be placed right against them, but when the roots are near the surface under these conditions the charge should have a considerable depth of earth between it and the wood.

It should be remarked that the most economical and easiest stump blasting always can be done when the ground is water soaked. Not only does the powder work more efficiently but the holes are easier to make and the roots come out with less force. In frozen ground, strange as it sounds, stumps blast out very satisfactorily.



Ditches Such as This Form Rapidly in Plowed Fields After the Start Has Been Made; All Rolling Land Requires Watching.

The Security Corrugated Metal Granary

Can be set anywhere you want it, and the thrasher can deliver into it. Then haul with your own teams when the market is high. The only granary with 8 corrugations to the sheet. 20 times stronger than plain sheets. Strongest roof on the market, with separate rafter frame. Strongly bolted water proof joints. Dorrer mangle made so that the wind can't blow grain. 20-gauge galvanized steel and angle iron construction. Strong and rigid. Good for a lifetime. Write for delivered prices and free booklet.

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Makers of Tanks and Corrugated Culverts.
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23 1/2 Cents Each

Made of the best high carbon spring steel. Will not buckle or break. Just what you need for that line fence. Low price on corner posts too. And with each order for 100 posts a

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Hercules posts are made to stand up and be permanent. Wire quickly fastened up by one man from either side of fence. Suited to any fencing or wire—these posts are GOOD.

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It tells all about the satisfactory Hercules and how to buy the best post at the lowest price. No trouble to answer questions.

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STARS MAKE DOLLARS

If you're a man of energy and business ability, here's an opening worth consideration. There is a great demand for drilled water wells, and there's a large sure profit to the man with a

STAR DRILLING MACHINE
Portable—Steam or Gasoline

Best by test. Low in price, high in practical worth. You can make it pay for itself and earn dividends all the time. Look into this! Sold on payment plan if desired. Our 140-page catalogue describes 31 different Star Drilling Machines. Write us and we'll mail you this book which will point the way to money making. Write today.

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Tile Silos BETTER and CHEAPER

Blocks curved and vitrified. Fire and Frost Proof, tile steel hoops imbedded. Easy to build. 12x30, 75 tons. \$148.00 14x30 100 tons. \$169.00 16x35, 149 tons. \$228.00. Other sizes proportionately low. FULLY WARRANTED. Why Pay More. **CLIMAX CUTTERS** Ask for our free trial offer. **HOOSIER EXTENSION** Eliminates Settling Silo Roofs. This saving makes your roof FREE. Agents Wanted. Write today.

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Handsome new style genuine coral necklace, very stylish, sent free with a 3-months subscription to Household Magazine at 10c with 5c extra for mailing expenses. Satisfaction guaranteed. **HOUSEHOLD MAGAZINE**, Dept. C. N. 14, TOPEKA, KAN.



For hot summer days you can have nothing that will afford more pleasure than a quiet hour in a hammock in some shady nook.

Free Gift

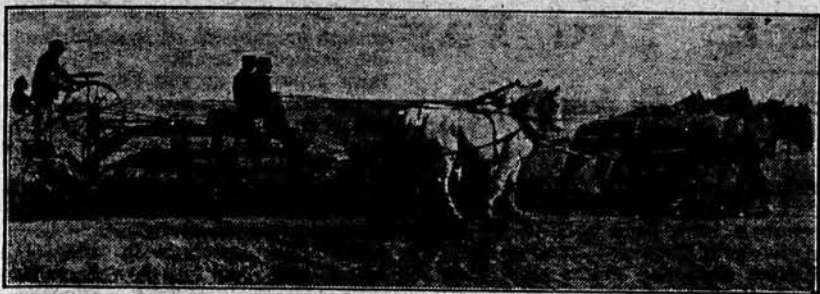
The Leno Hammock

OPEN WEAVE

Heavy 5-Ply Yarn
Variegated Colors in Bars
The Best in the Market

We have arranged to give a hammock free to everybody as a gift for a small club of subscriptions. The Leno Hammock is open weave, heavy 5-ply yarn, two-tone red, yellow and green alternating in bars, very attractive and the best in the market this season. We will send this 34x80 Hammock with pillow postpaid for two yearly subscriptions to Mail and Breeze at \$1.00 each or one 3-year subscription at \$2.00. With this offer we will include a year's subscription to Capper's Weekly.

Farmers Mail and Breeze, Dept. H, Topeka, Kan.



A Special Effort Has Been Made Recently, During the Favorable Weather, in Working the Roads Around Chapman.

For More Sudan Grass

BY G. E. THOMPSON.

In arranging for your crops this year especially if you live in the western half of Kansas, don't forget to put out a small field of Sudan grass. Three and one-fourth tons of cured hay an acre in one cutting was produced at the Dodge City Experiment station in Ford county. This field was planted with an ordinary wheat drill May 1 and cut for hay August 1. It was pastured for the rest of the season and produced an excellent quality of tender grass relished by all kinds of stock. Another small field of 2 acres was planted for a hog and calf pasture at the rate of 22 pounds of seed an acre. It gave continuous pasture for 20 head of hogs and five calves from June 10 to November 1, and in addition from six to 10 head of cat-

is best to make a cart for this purpose. The picture shows a barrel mounted on two old cultivator wheels. It is very easy to mount a barrel in this way, and the only expense is the use of a little time and old materials. It makes it possible to get the feed to the hogs in a much easier way than when it must be carried.

The Saving Habit

In the issue of March 25 you belittle the habit of thrift, the saving habit. I am ashamed of you, Tom. Please turn to page 26, of the same issue, and read that paragraph in the center of column 3. Read it several times. This statement is the truth, and not your howl. This is the condition among the laboring class everywhere, or four-fifths of them. I know—I have been one of



Cutting the Second Crop of Sudan Grass at Hays; the First Crop was very Heavy, but This Growth Was Somewhat Reduced by Dry Weather.

tle were turned in for a day or two on several occasions to eat down the excess grass.

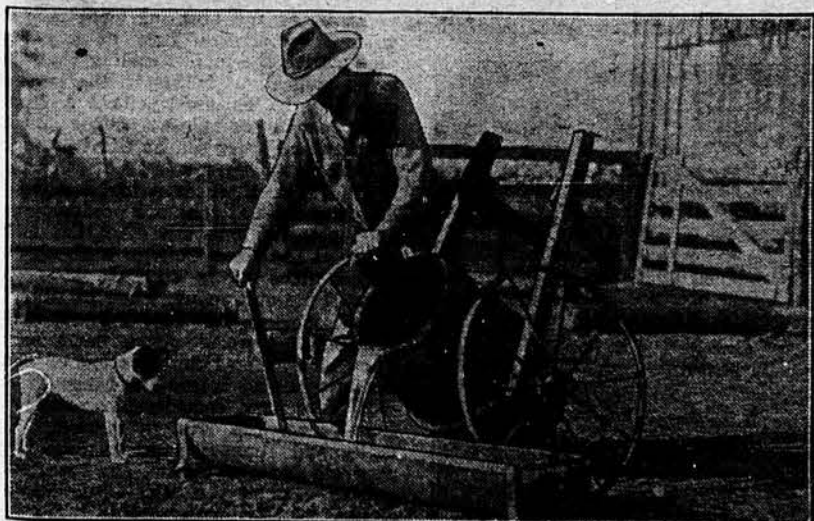
Already several farmers in different parts of the state have reported excellent results from the use of Sudan grass for pasture, but a larger number should try it. The hay is richer in protein than prairie hay, the not so rich as alfalfa. Kansas or northern grown seed should be used for planting as there is danger in getting Johnson grass in southern grown seed. This seed can be bought for 6 to 10 cents a pound and should be planted when the ground is warm, or at the regular time for planting sorghums.

A Cart for the Feed

With the coming of spring the hogs on many farms are placed at a considerable distance from the buildings. In many cases a large quantity of kitchen slops and other feed must be carried. It

them. The cause? A child can't save a dime; isn't taught it; can't earn it; not allowed until he is 15 years old and then he isn't worth a whoop.

The child labor laws are largely responsible for this condition. They won't allow a boy to work so that he may acquire a habit of work, so that he can appreciate the value of a dollar, and get a habit of thrift and save his wages. No sir; but he can run the streets and back alleys, form gangs at pool halls and become confirmed thieves and thugs by the time they are 16 years old. They don't know how to work. No inclination to work if they knew how. Consequently, is it any wonder that the daily record of crime, and holdup in particular range from 18 to 22 years? Give the boys work and the girls. I have traveled a bit in my time. I have worked for wages in Chicago, Omaha, Lincoln, Neb., Los Angeles, Kansas City and a host of smaller places. I know whereof I speak. J. J. Hughes. Minneapolis, Kan.



This is a Handy Little Cart for Carrying Feed of Any Kind for the Hogs, for it Saves Tired Arms.



"Let the Tractor Buyer Be Better Posted"

In accordance with the policy of the National Tractor Farming Demonstrations THE HAPPY FARMER will be seen at all tractor demonstrations. Following are the dates:

| | |
|------------------------------------|---|
| Dallas, Tex. July 17th-21st | Cedar Rapids, Ia. Aug. 14-18 |
| Hutchinson, Kan. July 24-28 | Bloomington, Ill. Aug. 21-25 |
| St. Louis, Mo. July 31-Aug. 4 | Indianapolis, Ind. Aug. 28-Sept. 1 |
| Fremont, Neb. Aug. 7-11 | Madison, Wis. Sept. 4-8 |

You have been hearing and reading about the HAPPY FARMER TRACTOR. Come to these demonstrations and satisfy yourself as to our claims. Here is a tractor built of steel and pulls two-thirds of its weight at the draw bar which means SIMPLICITY, DURABILITY and ECONOMY. Will do the work of six to eight horses. Just what you have been waiting for. **\$585** F.O.B. FACTORY

Make the HAPPY FARMER booth your headquarters. We have a surprise for you.

Happy Farmer
Tractor Co.
Minneapolis, Minn.



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Save Their Cost in 30 Days

Best for all farm purposes. Can be had in either steel or rubber tires. Fine for hauling to and from town. The outing trailer shown makes touring a pleasure. Write us for prices. Auto Tops. Seat covers, car bodies to order. Send for catalog FREE.

This shows the
Russ Outing Trailer



Russell H. Clark & Company
1527 Oak St., Kansas City, Mo.

\$5.00
PREPAID

Ford Owners Avoid Accidents



Parker's PERFECTO LIGHT device. It's the wonder of the age—Simple—no upkeep cost—no battery—nothing to break or repair—no oiling—Use same wiring—same magneto—Put on in five minutes with a small screw driver—Price \$5.00 at your garage—or direct of us. Write for information.

ASK YOUR DEALER

Parker & Shelton Mfg. Co., Topeka, Kan.

Have the Bright Light All the Time—

Slow up for the corner
—coast down hill
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—pass on the narrow road
Slow down your engine and still have a BRILLIANT LIGHT—with

FLEXOID will save your Hay, Grain and Machinery from exposure

FLEXOID is the guaranteed waterproof and mildew proof covering for your hay, grain and machinery. Our impregnating process gives FLEXOID its wonderful protective and lasting qualities; guaranteed to give you longer and better service than canvas or tarpaulin.

FLEXOID THE CANVAS OF A HUNDRED USES
Hay stacks, hay cocks, grain, machinery or wagon cover sizes; sold by the yard, for miscellaneous purposes such as feed troughs, lining for granaries, temporary roofing, covering for new concrete work, merchandise, etc. FLEXOID will save you money. WRITE TODAY for a FREE SAMPLE and Descriptive Booklet, mentioning your dealer's name. BEMIS BROS. BAG CO. DEPT. J. St. Louis, Mo.

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EVERY SIZE A BARGAIN. 2, 3, 4, 6, 8, 12, 16 and 22 H.P. Kerosene, Gasoline, etc. WITTE ENGINE WORKS, 1542 Oakland Ave., Kansas City, Mo. **\$89.90**

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High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated in colors free. Electric Wheel Co., 306 St. Quincy, Ill.

FARMERS MAIL & BREEZE
ENGRAVING DEPARTMENT
TOPEKA, KANSAS
CUTS OF YOUR LIVESTOCK FOR LETTERHEADS & SALE CATALOGS

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through the advertising columns of Farmers Mail and Breeze. You read the advertisements of others. Others will read yours. If you have purebred poultry for sale, a few hogs or dairy cows, a piece of land, seed corn, or almost anything farmers buy, it will pay you to tell about it through our advertising columns, either classified or display. The circulation of Farmers Mail and Breeze is 110,000 copies each issue. The cost of reaching all these subscribers and their families is very small. If it pays other farmers in your state to advertise with us, will it not pay you? Many of the largest, most experienced advertisers in the country use our columns year after year. It pays them or they wouldn't do it. Others in your own state are building a growing, profitable business by using our columns in season year after year. Why not you? If you don't know the rates, address Farmers Mail and Breeze, Topeka, Kansas.

P&O

Engine Gang Plows

Will be Shown at All Points on the
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If you are interested in Good Plowing follow any plow with a P&O trademark.

P&O Light Draft Engine Gang Plows are made in several styles, in all sizes from two bottoms up, suitable for any soil, in any section, and for all makes of tractors. Simple in construction, easy to operate, and noted especially for solidity, great strength and dependability.

P&O Little Genius Engine Gang Plow
Two, Three and Four Furrow.
A One-Man Outfit, and the
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the market today.

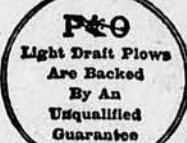


See the P&O Plows in Action

Let us mail to you a copy of our Catalog, "P&O Power Plows." It describes and illustrates what we sincerely believe is the most complete line of Engine Plows on the market today.

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Buy This All Steel 10x14 FOOT Portable Garage
For Autos and Tractors
Larger sizes in proportion - Also for two or more machines.
This Butler Round Roof Garage will afford permanent protection for your Auto or Tractor. Easily erected, moved or enlarged. Being All-Steel is Fire Proof and Weather Proof. Equipped with locking doors, window, ventilators, tool shelf, etc. Write for Free Booklet, giving full information and prices.

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290 Butler Bldg., Kansas City, Mo.

Save Your Worn Tires
GET 5,000 MILES MORE
service by "half-soling" them with Steel Studded Treads the same as European Motorists have been doing for over 3 years. 30,000 American Motorists have done this in the last 8 months and are saving \$50.00 to \$200 a year in tire expense.
5,000 Miles Without Puncture is the signed guarantee you get with every Durable Steel Studded Tread.
We Deliver Free without a cent deposit, pre pay the express and allow you to be the judge.
Special Discount offered to motorists on first shipment direct from the factory. Stop throwing away your worn tires - mail the coupon below for details - be sure and put in your tire sizes.

Get 5000 More Miles
MAIL THIS COUPON
The Colorado Tire & Leather Co.
764 Tremont Bldg., Denver, Colo.
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Without obligation send me free catalog, copy of guarantee, sample and booklet "10,000 Miles on One Set of Tires."
Name _____
Address _____
My Tire Sizes are _____

Be Careful Whom You Pay

Here's a List of Authorized Solicitors for the Farmers Mail and Breeze. Cut It Out

AT THIS time of the year, there are hundreds of men from other states flocking to Kansas where there is plenty of money, and numerous subscription solicitors will no doubt be coming in very soon. They will sell you any paper you call for, at any price you want to pay. They pocket the money and make no report to the publisher, and it is just this feature that we are trying to protect the citizens of Kansas against.

Subscribers and city marshals will please note the following district managers, and rest assured that no one is authorized to take subscriptions for the Daily Capital and the Farmers Mail and Breeze except the district men whose names are shown. We are not sending any special representatives out from this

office; no doubt the solicitor will say that he is direct from the office. City marshals have been notified by letter, of the proper receipt number for each district man, and unless they have receipt numbers as advised, city marshals will please prevent them from taking any subscriptions for these publications. Kansas has been noted for money being free and easy in the fall of the year, and every crook and confidence man knows this, and they flock here in great numbers. Do not pay your subscription to anyone except those whose names are shown below, and they are not allowed to take subscriptions outside of their district. Your city marshal can always tell you whether or not a person is an authorized district manager or a crook.

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Wichita, C. E. Freedy;
Woodson, Mrs. M. Replogle;
Wilson, K. F. Spellman;
Wyandotte, J. T. Sims.

A Brown Mouse at Barclay

BY JAMES SIMS.

Well taught agriculture has proved to be a source of strength to the school, whether a one-teacher country school, a high school, a college or a university. In no other way is it possible for a school to serve the local community more successfully than thru instruction in this study. This can be accomplished only by co-operation among the neighboring farmers and the school.

Prof. C. G. Mickel, who might well be called a "Brown Mouse," for his resemblance to that character in the story by Herbert Quick, has introduced a new and unique system for the study of agricul-

ture in the Barclay high school. His plan is to reduce text book study to a minimum and bring the students in touch with the system of farming of the community, so that they will have hard facts, acquired from men who make farming a business, to substantiate their theories.

The class receives, every week, in Barclay a number of papers chief among them the Farmers Mail and Breeze. The articles in the papers are studied, the advertisements are noted and special features are clipped and put in book form for future reference.

The text book adopted by the state, "Essentials of Agriculture," prepared by H. J. Waters, has many good points but



The Class in Agriculture in the High School at Barclay, Kansas, where the Farmers Mail and Breeze is a Text.

one objection. It does not broaden enough on subjects of special interest to the particular locality. The use of the farm papers overcomes this objection.

The class does a large part of its work out of doors in stock judging, and in the field. The indoor laboratory work consists of seed selection and testing and the checking and testing of the various cows of the neighborhood, in which the class has become proficient.

We also enrolled in the poultry school sent out by the extension department of K. S. A. C., gaining much information and at the same time doing much to enlist the interests of the people of the community in the class and its work.

To obtain knowledge of the factors which determine the value of a farm, this class took as an example a quarter section of land which had been neglected and was run down. The house on this farm had been torn down eight or ten years ago. No buildings were left excepting an old barn. We went thru the procedure of purchasing a farm which, altho imaginary, gave us a fair idea of deed, contracts and values of land. We figured the cost of fencing the farm; we planned the house and barns; determined the crops which should grow best; in short we made plans for putting the farm back on a paying basis. We kept record of such changes or plans in a large loose-leaf note book designed by a member of the class. The cover page title read Barclay School Farm. We obtained printed letter heads showing the same title, and then wrote for pamphlets and information from all reliable sources. Taking advantage of all advertising we obtained first hand information on machinery construction and prices, cost of buildings, freight rates and so on.

For indoor recitation work we reported on topics of agriculture such as the following: With the help of the biennial report we calculated the value of barnyard manure produced in Osage county in a year, and the value of plant food removed by the crops. The calculations were approximately correct. The value of manure produced coincided fairly with the value of the plant food removed by the crops, and the students were impressed by the fact, and the knowledge that the barnyard manure needed better care, which many farmers of Osage county have yet to learn.

The system established by Professor Mickel is a decided success. Its scope and usefulness is limited only by the demand made on the students' time by the other subjects of the school, and the students are industrious and enthusiastic over it.

Prospects for Sheep Raisers

Sheepmen familiar with conditions in the farming sections of Ohio, Wisconsin, Kentucky, and other great native sheep raising states, say that a large proportion of the farms in Kansas could carry a band of breeding sheep to advantage. That such an investment would return good dividends goes without argument, as all are familiar with the record prices being paid for both the wool and the sheep and lambs for slaughter. Lambs are in greatest demand. The business of sheep breeding has resolved itself into the production of lambs for market, and of the wool clip.

To get a start in raising sheep, Western breeding ewes can be bought at any of the markets during the autumn especially, and to some extent the year round. If an order for breeding ewes is placed with a commission firm at any stock yards, with the understanding that there is no rush about filling it, the ewes can generally be obtained within a reasonable length of time. Often in the autumn the order can be filled promptly, within a day or two.

Of course, there is a big demand for breeding ewes as they are producing such good returns, but the situation is not quite so bad as a Chicago authority declares, altho he is accurate in a good part of his statement, when he says, "A record market for breeding ewes is a certainty. Several years must elapse, even with general conservation of Western ewe lambs, before the range breeder will have any considerable number of females for the Eastern market. Kentucky and Tennessee are anxious to recuperate depleted flocks, and from every section east of the Mississippi comes a clamor for Western ewes."

Never wash eggs, it destroys their keeping qualities.



Remember!

You can only enter this
GREAT \$ 5,000⁰⁰ CASH
HOME PICTURE - GAME
up to **MIDNIGHT July 31st**

*You will have however until
SEPT 12th to solve the pictures*

START TODAY!

ENTER NOW AND GET YOUR SHARE OF THE REWARDS!

Don't Delay—Act Now—Start Today—Begin Playing Capper's \$5000 Cash Picturegame at Once
After Midnight July 31st, You Cannot Enter This Game, Altho You Will Have Until
Sept. 12th to Submit Your Set of Answers. So Hurry Up—Get Into the Game Now

See How Easy It Is to Pick Out the BEST Titles to Pictures

Look at the two sample pictures below. No. 1 plainly shows a little boy saying to a woman, "I've come to stay for awhile." If you had our Official Catalog of Titles before you, certainly you would at once turn to the letter "L" and look for some title beginning with the word "Little," and sure enough you would find the title "Little Guest, The." Isn't that a splendid title for the picture? Now look at No. 2. You see a woman between two men who are both telling of their affection for her. Look at the titles beneath the picture and see if you can pick out the BEST title to it. If you can, then you should be in our game.



Now you know just what the game is and how to play it. You simply look at the pictures and then go through the Catalog and pick out the titles you think BEST fit them. You can do it. Of course you picked out the title "Between Two Loves" as the best one for the sample picture No. 2 above. Now get the Complete Picturegame Outfit at once, and begin playing your way to your share of the \$5,000 Cash.

The Judges of the Picturegame Are

F. D. COBURN, Formerly Kansas State Sec. of Agriculture
W. E. CONNELLEY, Sec. Kansas State Historical Society
W. D. ROSS, Kansas State Supt. of Public Instruction

You can rest assured that absolute fair play will govern in the awarding of the prizes. We will send you free, upon request, complete information about the game, also the Rules, which show how every one can compete without expense. But you know what the game is and how to play it, so you should order your Picturegame Outfit today and get busy in the game.

Picturegame Editor
Capper Publications **Topeka, Kansas**

Picturegame simply consists of 32 pictures, fitting the names of books, and to those who submit the largest number of BEST titles to the pictures will be awarded the \$5,000.00 in cash prizes. All the book titles you can use are to be found in our Official Catalog of Book Titles, alphabetically arranged. All you have to do is to go through this Catalog and find the BEST titles to the pictures. There's fun and profit in this game. Everyone can enter and play. There are no restrictions, catches or subterfuges. It is fair and square. You, whoever you are start today.

You'll Have to Hurry

if you're going to compete in this easy game and try for a part of the \$5,000 Cash. You cannot enter this game after July 31st, but you will have plenty of time (September 12th) to make up and submit your set of answers. So if you order your Picturegame Outfit today, you will have almost two months in which to play. So get busy now. Order your Outfit today.

Let Us Make You a Present of One of the Big Cash Prizes Listed Below. Play Our Splendid Game.

First Prize \$1,500 in Cash
Second Prize \$750 in Cash
Third Prize \$500 in Cash
Fourth Prize \$250 in Cash
Fifth Prize \$125 in Cash
Sixth Prize \$100 in Cash
Seventh Prize \$75 in Cash
Eighth Prize \$50 in Cash
495 OTHER BIG CASH PRIZES

\$5,000.00 cash is the total prize list. Do you want your share? Better start now.
Full prizes will be paid all final tying contestants.

THIS IS ALL YOU NEED TO ENTER AND PLAY CAPPER'S \$5,000 CASH HOME PICTUREGAME

The 32 pictures, contained in the Picture Pamphlet.
The Catalog of Book Titles, containing all the book titles you can use, alphabetically arranged.
The Reply Book in which you write down your answers, and then send to us as your set of answers. You can also make five answers to each picture.

The 32 pictures, Catalog of Titles and Reply Book constitute the Complete Picturegame Outfit, and is all you need to enter and play our game. We will give you this Complete Picturegame Outfit FREE if you will only send us \$1.00 to pay for a subscription to The Farmers Mail and Breeze for one year, and your subscription may be either new, renewal or an extension. Accept this wonderful offer today—get the Complete Picturegame Outfit at once, and begin playing our game. There is no reason why you shouldn't win the first prize of \$1,500 cash. You can pick out titles to pictures as well as anyone.

Send in Your Order Today Without Fail—Hurry Up

SPECIAL OFFER ORDER FORM

PICTUREGAME EDITOR, Capper Publications, Topeka, Kansas.

I enclose \$1.00 for which send me The Farmers Mail and Breeze for one year, and as a gift you are to send me FREE the Complete Picturegame Outfit consisting of the 32 pictures, Catalog of Book Titles and Reply Book, in which to enter my answers. This Outfit is all I need to enter and play your \$5,000 Cash Picturegame.

F. M. B.

Name.....

Street and No.....

City.....State.....

Don't fail to send in your order today. Start to play this game at once. Try to win the \$1,500 cash, first prize.

Wheat Quality is Excellent

Harvest Loss Due to Bad Weather has been Light this Year

BY OUR COUNTY CORRESPONDENTS



A Scene on the Farm of T. Holmes Mills, Roosevelt, Okla. The Male in the Foreground is Registered, the Heifers are Pureblood but not Registered.

FLOODS AND HAIL were the only important weather disturbances in Kansas during June. The estimated damage did not exceed 2 million dollars. In most sections of the state the last of June and the first of July was excellent harvest weather. The bulk of the wheat is saved in good condition this year, and it should grade well on the market. Most of the wheat in the United States held over from last year is of inferior quality, and there will be a large demand for this year's crop as soon as it is ready to mill.

KANSAS.

Decatur County—The last week has been dry, with some wind the fore part. Harvest has begun. Wheat will yield from 10 to 20 bushels. The quality is fair.—G. A. Jern, July 8.

Wabannsee County—Farmers are all thru cutting wheat and oats. Some have started stacking. We haven't had any rain for nearly two weeks. The ground is getting too hard to cultivate corn. Some corn is laid by. The second crop of alfalfa is good.—Henry Lesline, July 7.

Harvey County—Shock threshing keeps folks busy. Harvest will be finished this week. No rain for 10 days. Corn ground is hard and baked. New wheat 85c; corn 60c; new potatoes \$1.20; butter 25c; eggs 15c; ice 50c a hundred; harvest wages \$2.50 a day.—H. W. Prouty, July 7.

Logan County—We have had dry and windy weather for the last two weeks. Crops are about at a standstill for want of moisture. The average yield of wheat will be about 6 bushels with a poor prospect for corn at this writing. Butter 25c; eggs 16c; potatoes \$1.60.—R. McCormick, July 6.

Scott County—We need rain. This is fine weather for saving the grain. Harvest is in full blast. Corn has a good color yet. Some good oats and barley. Wheat is mostly a light crop—from 8 to 10 bushels an acre. Grass is good. The stock is doing well. Grasshoppers are numerous.—J. M. Helfrick, July 8.

Leavenworth County—Thrashing is being done now, and the yield is from 15 to 25 bushels an acre. Almost all of the corn is too large to plow, and is a good color but needs rain. Oats are a good crop. Pasture is good and the hay is heavy. There will be no peaches but some apples.—Geo. S. Marshall, July 8.

Allen County—Corn is looking well, but it needs rain. Oats are cut and stacked. Some have been threshed and are making 20 to 30 bushels. Flax is fair. Some wheat has been threshed and is making 10 bushels. Timothy and clover are the best for years. A good many cattle are going to market.—Geo. O. Johnson, July 8.

Kiowa County—Harvest will be over by July 12. The weather has been quite favorable. The wheat has been put up in good condition. Hands seemed scarce at first but enough arrived later. We begin to need rain. We have had some calm weather, and scarcity of stock water because mills did not run.—H. E. Stewart, July 9.

Riley County—We are having ideal weather for harvesting, which is about finished. The ground is getting rather dry for corn. Some wheat was thin on the ground, but all was a good quality. The second crop of alfalfa is in the stack. Corn looks well, but needs another cultivation. Pastures and meadows are good.—P. O. Hawkins, July 8.

Shawnee County—The weather has been fine for the last 10 days. Wheat and oats are all cut and threshing has begun. Corn is all laid by. The second cutting of alfalfa is being cut. A good deal of wheat has been contracted for at 90 cents. Potatoes are being dug. Almost all of the bottom corn is in good condition. All stock is doing well.—J. P. Ross, July 8.

Cowley County—Been having a few days of hot weather. The ground is getting dry. We have had no rain for two weeks. Farmers are busy laying corn by. Almost all the corn is getting too high for the cultivator so the five-tooth is used. Thrashing began this week. Wheat is very uneven.—Hogs \$3.60; hens 12c; springs 18c; eggs 16c.—L. Thurber, July 8.

Stanton County—Prospects for crops are good, considering the late start they got. We have plenty of moisture. Crops are growing nicely. We have had a few hail storms. A few farmers were hailed out completely but on an average not much damage was done. Cattle are fat. There is

not much blackleg this year. Horses are not doing well.—Earl H. Dunbar, July 7.

Morris County—Ten days of dry weather have given the farmers a chance to clean up corn and kafir fields, get oats and wheat harvested, and the alfalfa crop attended to. Oats were hurt to some extent with rust. Wheat should make a good crop. Alfalfa is excellent. Corn is backward, but some is laid by. Pastures are fine. Some grass cattle are going to market.—J. R. Henry, July 8.

Barton County—Wheat harvest is about over. The weather has been favorable for harvesting and the wheat has been put in stack in excellent condition. Some threshing will be done next week. Corn looks well but some fields show a thin stand on account of cutworms. Alfalfa is ready to be cut the second time. Pastures are good and stock is doing fine. Wheat 90c; corn 61c.—J. A. Johnson, July 8.

Sedgewick County—We are having hot weather now and many farmers are cutting the day to 8 hours and are getting a lot of work done, too. Harvest is over, and all have been busy in the corn fields since threshing will begin at once. It looks as if most of the farmers will hold their wheat. The second cutting of alfalfa is the heaviest in years. Potatoes are very good.—J. R. Kelso, July 8.

Smith County—Dry, hot weather prevails. Corn is doing well where it has been well tended. Weedy fields are needing rain. Average estimated yield of wheat is 20 bushels an acre. Potatoes and garden truck need rain. The second crop of alfalfa is being put up. The yield will be light. Another week of this weather, and all vegetation will be suffering for moisture.—Ernest Crown, July 8.

Comanche County—Wheat harvest has been completed. Some threshing is being done. Yield is from 5 to 30 bushels. The quality is fine. Spring crops are looking fine but are beginning to need rain. Wheat stubble is too dry to plow. Grass is fine and cattle are doing well, but flies are beginning to bunch them during most of the day. A few public sales continue with prices good on all stock.—S. A. Delair, July 8.

Geary County—The weather has been hot and dry for two weeks. It is 98 to 100 in the shade and the ground is getting dry. Harvest is almost finished. Lots of oats were cut too green. Those left to ripen are excellent. Corn is growing nicely and the last cultivating is being rushed. The ground is getting dry, and almost too hard to plow. Alfalfa cutting is being rushed and threshing will be in full swing next week.—O. R. Strauss, July 8.

Lyon County—Wheat is harvested. This is nice dry weather to cut wheat and alfalfa. Some fields of excellent wheat where the ground is good, and where there was a heavy stand last winter. Oats are light on most farms on account of too much water. The ground is drying rapidly. Corn where water and weeds have not damaged it, is doing well. Flies are bad on stock. Crops need rain. There is a big crop of hay and pasture.—E. R. Griffith, July 8.

Chautauque County—The weather is dry and hot. Wheat and oats crops are light, owing to the dry spring. Fruit crop also is short. There are no peaches, plums nor apples to speak of. Prairie hay is quite short for this time of the year. Stock flies are more numerous than for several years. The corn crop is good only in spots. Harvest is over, and we are ready to begin threshing. Prices are good. Milk cows \$50 to \$75; hogs \$9; butter 25c; hens 12c; eggs 15c.—H. B. Fairley, July 7.

Woodson County—We are having fine growing weather and all crops are taking advantage of it. Corn is laid by and some is in tassel. About 10 days of fine weather was spent in getting the fields in condition. Oats are all cut and in shock, also wheat. Wheat will make 75 to 85 per cent of a crop but a great deal was damaged by high water. Oats will make 60 to 75 per cent crop. Kafir is doing nicely and there is an abundance of prairie hay. Haying will start before July 10. Pastures are good and stock is doing well, but flies are bad.—E. F. Opperman, July 7.

OKLAHOMA.

Alfalfa County—Farmers are busy threshing wheat. Wheat yield is from 12 to 21 bushels an acre. It tests from 58 to 62 pounds. Spring crops need rain. Some plowing is being done. One threshing machine has set a record of 2,665 bushels for one day's threshing. Wheat 88c to 90c.—J. W. Lyon, July 8.

Blaine County—This is nice growing weather. Nothing is suffering for moisture. Corn is in silk and tassel. A lot of corn needs more work but got too big for farmers to cultivate when they got thru with harvest. Considerable threshing has

been done. Wheat is good in quality; the yield is low. The second crop of alfalfa is fairly good. Early millet is ready to cut. We are having good hay weather. Some plowing for wheat is being done. A lot of milo was planted where oats failed.—Henry Willert, July 7.

Muskogee County—The weather has been ideal for harvest. There is plenty of rain to keep corn growing but it did not bother cutting oats. Oats will not average more than 20 bushels an acre. Threshers have started and some oats have been stacked. The hay crop is heavy but much of it will not be cut unless prices advance. Buyers are bidding 26 cents for new oats. Stock is looking good. Corn 55c to 75c; eggs 20c; butter 25c; young fry 25c.—K. D. Olin, July 8.

Kiowa County—It is warm and dry now. On June 24 a great hail storm swept away most of the cotton crop in this part of the country. Barns and houses were blown down and unroofed and great damage done to all kinds of property. Not for years has as much damage been done in this country from storms. Many are replanting their cotton land in feed crops. It was too late in the season to replant cotton with any hope that it would make anything. Butter 25c; cream 29c; eggs 12c; hens 12c.—T. Holmes Mills, July 8.

For Lower Interest Rates

BY HARLEY HATCH.

Those who are talking rural credit and who are concerned in making interest rates lower might well study the effects of the releasing of mortgage notes from taxation in both Nebraska and Vermont. In Nebraska the law relating to taxing mortgages was changed about four years ago to allow the farm owner carrying a mortgage to have the amount of the mortgage taken out of the farm value and shifted to the mortgage owner. But it was further provided that if a contract was so made the mortgage tax could be shifted to the farm owner. Of course all mortgages made since then shift the tax from the mortgage holder to the land owner but this avoids the double taxation of both the land and the indebtedness. This looks unfair to the farm owner but in reality it has reduced the interest rate in Nebraska until that state now enjoys the lowest rate on farm loans in the West. In Eastern Nebraska money can be borrowed on real estate security at 5 per cent net as compared with 6 per cent in all adjoining states.

In Vermont it is provided that all notes and mortgages shall be returned to the assessor but that no note or mortgage bearing 5 per cent or less shall be placed on the tax rolls. All notes bearing more than 5 per cent go on the tax rolls at the regular rate. As a result, the assessment for 1916 disclosed that in the town of Barton, a place of less than 3,500 persons, there were notes amounting to \$162,000 listed with the assessor as bearing interest at the rate of 5 per cent. This law is distinctly in favor of the debtor; it creates no obligation which can be showed along to the man owing the money. The sooner our legislators escape from the idea that they can hang burdens on the creditor which he will not pass along to the debtor, the sooner will the debtor receive lower interest rates.

A Belleville, Kan., reader asks about the sowing of timothy. There is no crop in which the amount of seed given as necessary for an acre varies so much as with timothy. Some authorities say to sow as much as 16 pounds to the acre while others place the amount as low as 6 pounds. Timothy seed is small and if the ground is in good condition

a little will, like the old Scotchman's comment, "go a long way." For spring sowing on good soil well prepared, I should think 8 pounds of timothy and 2 or 3 pounds of Red clover would be plenty. It is now too late to sow timothy this spring; the young plants would be too tender to stand the hot summer sun if the sowing were done in May. Fall sowing is doubtful; sometimes it goes thru the winter all right and sometimes it doesn't. On the whole, I think April the right month in which to sow timothy in Eastern Kansas.

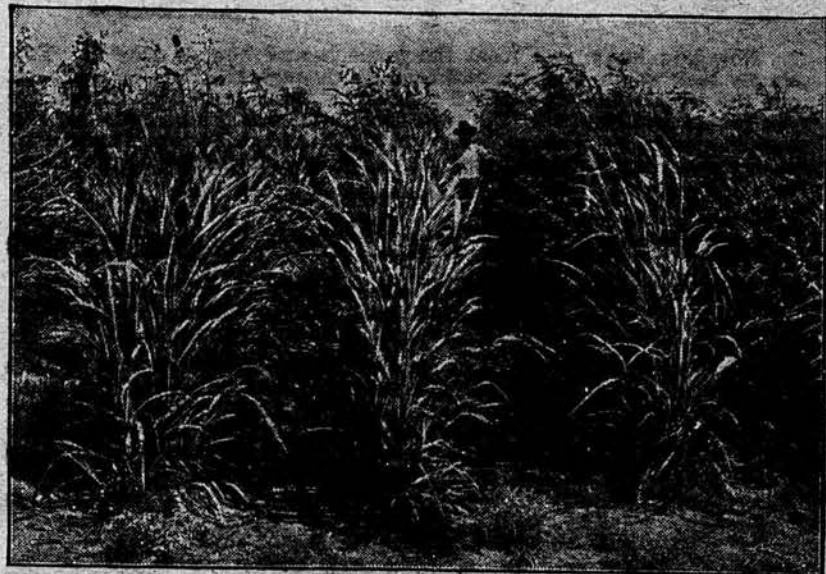
Just 100 years ago occurred the season still remembered in New England as "eighteen-hundred and froze-to-death." The year of 1816 is known as the year without a summer and in the New England states snow fell and freezes came every month in the year. So we can see that the cold spring of 1916 is as nothing compared with the season just 100 years ago. My grandfather was a small boy in 1816; I have often heard him tell of coming home from school one June day up to his knees in snow. No grain was raised in New England that year except in a few sheltered spots. One farmer whose cornfield was in a protected spot in the Connecticut River valley raised some corn and he has been mentioned in song and story because he refused to take advantage of his poor neighbors but sold the corn to them in small lots for the regular price received in a good crop year. What made matters still harder to bear was the fact that the country had scarcely begun to recover from the second war with England. So you can see that the country west of the Missouri River is not the only one to have a taste of hard times. Even sorghum molasses and corn bread would taste good to the man who had no bread at all. But because 100 years ago was without a summer I do not fear that this will be like it. There is no fear but what August will have sun and heat enough.

A Larger Acreage of Sudan?

BY E. J. MACY,
Montgomery County Agent.

Sudan grass was introduced into Montgomery county in 1914 thru the activities of the farm bureau and has proved to be a long looked for crop, that can be grown for annual pasture or hay. Dean Jardine in a talk given at the Parsons Livestock conference on pastures, said: "Sudan grass is the best annual grass that we have ever known and we should be growing more of it for annual hay crops and for pasture."

Arrangements have been made with quite a number of bureau members to either plant or sow Sudan grass for pasture or as a hay proposition; some of these tests will have millet, cane and kafir sown for hay as a comparison. Sudan grass is planted for seed production with a corn planter. Use from 2 to 3 pounds of seed and the kafir plates. If sown for pasture or for hay, seeding may be at the rate of 10 or 12 pounds an acre, using a grain drill with every other hole closed. This method of seeding will permit the plants to stool as they should. The yield of hay should be about 3½ tons an acre under average conditions.



Plant the Sudan Grass for Seed in Rows, and Give Good Cultivation. High Yields Have Been Produced in Southeastern Kansas.

FARMERS CLASSIFIED ADVERTISEMENTS

Farmers Mail and Breeze is the greatest classified advertising medium in the farm paper field. It carries the most classified advertising because it gives the best results. The rate is low: 5 cents a word; four or more consecutive insertions 4 1/2 cents a word. Here is a splendid opportunity for selling poultry, livestock, land, seeds and nursery stock, for renting a farm, or securing help or a situation. Write us for proof that it pays. Everybody reads these little ads. Try a classified advertisement now.

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LEGHORNS.

SINGLE COMB WHITE LEGHORN YEARLING hens \$1.00 each. Eggs \$1 per 15, \$3 per 100. A. Pitney, Belvue, Kan.

FOR SALE—FINE BUFF LEGHORN hens. My breeding pens—selected for eggs color, size—\$10 per doz. Four months old pullets \$8 per doz. A. F. Summers, Route One, Winfield, Kansas.

PLYMOUTH ROCKS.

BARRED ROCKS AND ITALIAN BEES. Miss Mattie A. Gillespie, Clay Center, Kan.

BUFF ROCKS. A FEW YOUNG HENS for sale. William A. Hess, Humboldt, Kansas.

DUFF'S BIG BARRED ROCKS. BREEDING pens and early chicks for sale. A. H. Duff, Larned, Kan.

WYANDOTTES.

BUFF WYANDOTTE HENS 85C AND \$1. Geo. Kittell, Newton, Kan.

SEVERAL VARIETIES.

THOROUGHbred BABIES. GUARANTEED Red, White Plymouth Rock, White Leghorns, 8 cents. Colwell Hatchery, Smith Center, Kan.

POULTRY WANTED.

THE COPE, TOPEKA, WANT YOUR surplus poultry. Coops loaned free. Daily remittances. Postal request brings cash offer.

POULTRY SHELL.

LIMA-SHELL IS MUCH BETTER THAN clam or oyster shell. It is guaranteed 96% pure carbonate lime. 100 lbs. 75c, 500 lbs. \$3.00, either chick or hen size. Put up in heavy white sacks. Brooks Wholesale Co., Ft. Scott, Kan.

SEEDS AND NURSERIES

Advertisements under this heading will be inserted at 5 cents a word. Four or more insertions 4 1/2 cents a word each insertion. No display type or illustrations admitted.

HOMEGROWN ALFALFA AND WHITE blossom Sweet clover, fancy and choice. Write for samples and prices. Asher Adams, Osage City, Kansas.

CANE SEED: CHOICE ORANGE AND Sumac cane seed. 65c per bu. for the Orange and 75c per bu. for the Sumac F. O. B. Eureka, sacks extra at 10c ea. W. E. Doud, Eureka, Kansas.

PET STOCK

Advertisements under this heading will be inserted at 5 cents a word. Four or more insertions 4 1/2 cents a word each insertion. No display type or illustrations admitted.

PEDIGREED SCOTCH COLLIE PUPS from trained stock. Martin Diekmann, White City, Kan.

PURE BRED SCOTCH COLLIE PUPS. Write me your wants. Cecil L. Hinds, Mound Valley, Kan.

LIVE STOCK

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FOR SALE—RED POLLED BULLS. H. D. Mellenbruch, Osage City, Kan.

JERSEY BULLS, POLAND PIGS, IN pairs, Laptad Stock Farm, Lawrence, Kan.

FOR SALE—REGISTERED ROAN SHORT-horn bull, 2 years old, extra quality. A. Newcombe, Burrton, Kan.

10 EXTRA HIGH GRADE JERSEY COWS \$75.00 each if taken together. Bred to Bell's Fern of Hood Farm. Will calve Sept. and Oct. Jas. R. Snyder, Box B, Frazer, Mo.

FOR SALE: TEN HIGH GRADE HOLSTEIN heifers, freshen soon, good condition. Ernest Holmes, Garnett, Kansas.

SIXTY-FOUR HEAD OF STOCK CATTLE, mostly blacks, in good condition. Will sell reasonably if taken at once. Write for full information. Mark R. Clay, Arlington, Colo.

BELGIAN HARES

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BELGIAN HARES, ALL VARIETIES; goldfish, fancy pigeons, cheap lands. J. W. Wampler, Garden City, Kansas.

YOU CAN MAKE A GOOD LIVING IN your back yard raising Belgian Hares. Full particulars and price list of all breeds 10 cents. W. G. Thorson, Aurora, Colorado.

LUMBER

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LUMBER! BUY FROM US. HIGH GRADE. Bottom prices. Quick shipment. Keystone Lumber Co., Tacoma, Wash.

LUMBER AT WHOLESALE TO THE CONSUMER. Send itemized bills for estimate. We guarantee quality, count and can ship promptly. McKee Lumber Co. of Kansas, Emporia, Kan.

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FARMS WANTED—HAVE 4,000 BUYERS; describe your unsold property. 506 Farmers Exchange, Denver, Colo.

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

LANDS

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GOOD IMPROVED 80 ACRE FARM FOR sale. Owner, F. C. Meyer, R. 3, LeRoy, Kan.

IF YOU WANT TO SELL YOUR FARM OR city property, write us at once. Liggett & Cooper, Dodge City, Kansas.

BEAUTIFUL HOMES, BEST SCHOOL town. Improved tracts, irrigated and cheap lands. King & Thompson, Greeley, Colo.

FOR SALE—160 ACRE BOTTOM FARM. 80 in alfalfa. All in cultivation. Near oil development. \$12,000. H. Robinson, Sumner, Okla.

FOR SALE—160 ACRES IN WALLACE Co., Kan. Imp. Price \$1,800. Write if interested. Ben Anderson, Lawrence, Kan., R. No. 1.

WANTED—FARMS AND RANCHES! OWNERS send description. We have cash buyers on hand. Don't pay commission. Write Up-to-Date Realty Exchange, La Salle, Illinois.

SEVERAL QUARTER SECTIONS OF VERY fine irrigated land, all in cultivation, near Monte Vista, Colorado. Very low prices. J. S. Bryan, 805 Campbell Bldg., Oklahoma City, Okla.

FOR TRADE OR SALE—A DANDY section of land in the best part of the Panhandle, Ochiltree county; will take general merchandise, good notes and mortgages. Write Box 7, Atlanta, Kan.

FOR SALE

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BULL TRACTOR FOR SALE. PRICE \$225.00. F. A. Pratt, Wakarusa, Kan.

SILLO FOR SALE AT A BARGAIN. 20x36—1 piece fir in good condition. L. H. Kilbourn, Kincaid, Kan.

FOR SALE—1915 BIG BULL TRACTOR. plow and binder hitch, all in first class condition. Write for particulars. Wm. Grier, Viola, Kan.

BUILDING FOR RENT OR SALE—A good opening for a milliner. Contains mirrors, show cases, shelving and counters. Address Box 92, Randolph, Kan.

FOR SALE—FEED STORE, FEED MILL and hydraulic cider press. Doing good business. Must sell on account of sickness. G. F. Gill, 2612 East 8th St., Topeka, Kan.

BUY A FARM IN TEXARKANA TERRITORY—truck, dairy, fruit and all round farms in the uplands \$10 an acre up. Red River valley lands leveled and drained \$15 an acre up—no richer land anywhere. 50 miles good roads, 60 miles building. For full data address Young Men's Business League, Texarkana, Ark.-Tex.

FINE TOPEKA HOME FOR SALE—I WILL sell my place in Topeka, located on the most beautiful street in the city, near limits of city, two blocks from street car, two blocks from fine school, fine old shade, park like surroundings, lot 6 1/4 by 205 feet, eight room house, modern in every detail, hardwood finish, four fine mantels and grates, oak, brick and tile, big sleeping and dining porch, both screened, barn, poultry houses, etc., etc. Fine place for farmer who wants to move to the capital city. Price \$5,500, worth more. Cash or terms. Interest only 6 per cent instead of the usual 7 per cent. No trade. Address R. W. E., care Mail and Breeze.

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LET US TAN YOUR HIDE: COW, HORSE, or calf skins for coat or robe. Catalogue on request. The Crosby Frisian Fur Co., Rochester, N. Y.

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ITALIAN BEES FOR SALE. A. H. DUFF, Larned, Kan.

NEW CROP HONEY—WHITE EXTRACTED, two 60-pound cans \$10.00; amber extracted, two 60-pound cans \$9.00; bulk comb (white), two 56-pound cans \$12.00. These are delivered prices to stations on A. T. & S. F. in Kansas and Okla. On other roads 75c extra per case. Single cans 25c extra. Comb honey, 24 sections in case, \$2.75 f. o. b. here. V. N. Hopper, Las Cruces, N. M.

CREAM WANTED

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CREAM WANTED—THE INDEPENDENT Creamery Company of Council Grove, Kansas, buys direct from the farmer. Write for particulars.

MALE HELP WANTED

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GOVERNMENT FARMERS WANTED. \$60 to \$125 monthly. Free living quarters. Write Ozment, 38F, St. Louis.

MOLER BARBER COLLEGE. OLDEST and cheapest. Men wanted. Write for free catalogue. 514 Main St., Kansas City, Mo.

YOUNG MEN WANTED AS RAILWAY mail clerks. \$75.00 month. Sample examination questions free. Franklin Institute, Dept M 48, Rochester, N. Y.

SALESMEN WANTED FOR FRUIT AND ornamental trees. Experience unnecessary. Outfit free. Pay weekly. Carman Nursery Co., Lawrence, Kan., Dept. A.

YOUNG MEN—BECOME AUTO CHAUFFEURS, \$18 week. Earn while learning. sample lessons free. Write immediately. Franklin Institute, Dept M 822, Rochester, N. Y.

WANTED SALESMAN—WE ARE ENLARGING our sales force in the West and can use you if you are wide awake. \$10.00 a day and up easily made on your own sales and more if you hire and teach others to work for you. You double your money on each sale. Experience unnecessary. No traveling. Exclusive territory. Write today. United Vacuum Sweeper Company, 1315 W. Congress, Chicago, Ill.

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GOVERNMENT NEEDS MEN AND WOMEN over 18, for stationary and traveling positions. Big salaries; new locations. Write, Ozment, 38F, St. Louis.

COLORADO WANTS DAIRYMEN, POULTRY and hog raisers; good market; top prices; will see that you get square deal; nothing to sell. Write State Board of Immigration, Capitol Bldg., Denver, Colo.

MEN—WOMEN WANTED EVERYWHERE. U. S. government jobs. \$75.00 to \$150.00 month. Vacations. Common education sufficient. Write immediately for free list of positions now obtainable. Franklin Institute, Dept M 51, Rochester, N. Y.

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KENTUCKY'S BEST NATURAL LEAF tobacco, chewing or smoking, parcel post prepaid. 4 lbs. \$1.00; 10 lbs. \$2.00. S. Rosenblatt, Hawesville, Ky.

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MEN OF IDEAS AND INVENTIVE ABILITY should write for new "List of Needed Inventions," Patent Buyers, and "How to Get Your Patent and Your Money," Advice free. Randolph & Co., Patent Attorneys, Dept. 25, Washington, D. C.

PATENTS—WRITE FOR HOW TO OBTAIN a Patent, list of Patent Buyers and Inventions-Wanted. \$1,000,000 in prizes offered for inventions. Send sketch for free opinion as to patentability. Our Four Books sent free. Patents advertised free. We assist inventors to sell their inventions. Victor J. Evans Co., Patent Attys., 825 Ninth, Washington, D. C.

MISCELLANEOUS

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WANTED TO BUY CATALPA AND HEDGE posts. Address Posts, care Mail and Breeze, Topeka, Kan.

ENGINEER GAS-TRACTOR WANTS POSITION. Can handle any make. W. J. Tribble, Nanina, Okla.

SANITARY CREAM COVERS. HELP make better grade cream. Two for 25 cents. H. E. Richter, Summerfield, Kansas.

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.

BIG WESTERN WEEKLY SIX MONTHS 10 cents. Biggest and best general home and news weekly published in the West. Review of the week's current events by Tom Reveal. Interesting and instructive departments for young and old. Special offer, six months' trial subscription—twenty-six big issues—10 cents. Address Capper's Weekly, Dept. W. A.-12, Topeka, Kan.

To Increase the Livestock

BY W. A. COCHEL

The supply of breeding animals on both farms and ranges would be increased tremendously if means of financing breeding operations were provided. It is possible for a farmer who has produced a crop of corn or has pasture available to go to almost any bank and get funds with which to purchase steers to consume the products of his land. Money is lent for 90 to 180 days with the privilege of renewal. It is impossible, however, for him to borrow the same amount with breeding females as security, because from three to five years' time must elapse before the increase will be marketable. This probably is the greatest problem to be solved if

breeding operations are to be materially increased in the very near future.

Breeding herds also should be established in the East, in the South, and in the cut-over districts near the great lakes, on lands that are adapted to the production of pasture grasses, in order that a farm market may be provided for the hay, stover and straw, much of which has little or no commercial value. More attention should be paid to pastures in order to increase their carrying capacity by the use of silage during unfavorable periods, by fertilizing them with manure or other plant food, and by thickening the stand of grass, either through natural or artificial means. Grass is the most important crop produced in the United States, more land being devoted to its production than to all others except trees. Throughout the great grazing

areas of the country something of a definite, permanent value must be done to re-establish pastures or the supply of feeding stock will diminish rather than increase in the next few years.

In the sub-humid sections the use of the silo to preserve drouth-resisting crops, such as kafir, milo, feterita and sorghums, and the introduction of new crops such as Sudan grass, will make it possible to more than double the livestock production of those areas. In all parts of the United States at least 300 pounds increase in weight of the average 2-year-old steer could be obtained by supplying him with an abundance of grass in summer and an abundance of roughage in winter. A limited amount of high protein feeds should be used to make up the deficiency in this nutrient of the ordinary roughages usually pro-

duced where legumes cannot be successfully grown. The tremendous waste of straw and stover—the by-products of the cereal crops, corn, oats and wheat—which takes place annually throughout the entire country, is sufficient to maintain thousands of animals in good breeding or stock condition. This material has not as yet been successfully used on a very large scale, but recent investigational work indicates that the use of a succulent feed during winter renders dry, coarse feeds palatable to a very large extent.

Departing guest: "Why, it's raining! I wonder if you could lend me an umbrella?" "Certainly. But—well, the fact is, I think I would be the better for a walk. I'll just take a turn with you and shelter you by the way."

BIG BARGAINS IN REAL ESTATE

Dealers whose advertisements appear in this paper are thoroughly reliable and the many bargains are worthy of your consideration

Special Notice

All advertising copy intended for the Real Estate Department must reach this office by 10 o'clock Saturday morning, one week in advance of publication to be effective in that issue. All forms in this department of the paper close at that time and it is impossible to make any changes in the pages after they are electrotyped.

OIL AND GAS LEASES. Farms and ranches. C. W. Harvey, El Dorado, Kan.

SNAPS. 80 and 160, 3 mi. out; fine imp. Possession. Decker & Booth, Valley Falls, Kan.

CLARK COUNTY wheat and ranch land, \$10 up. Harvey & Woodring, Ashland, Kan.

PROSPEROUS Meade County. Land, \$12 and up. No trades. Write J. A. Denslow, Meade, Kan.

CHASE CO. RANCHES and grass land for sale only. No trades. Webb & Park, Clements, Kan.

80 ACRES close to Ft. Leavenworth. \$5,000; W. Kansas and E. Colorado wheat lands. \$5 up. Morris Land Co., Owners, Lawrence, Kan.

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HAVE MOVED to Springfield, Illinois. Want to sell three improved alfalfa and grain farms near Howard, Kansas. N. O. Tate.

320 A. 9 MI. SO. TOWN. Black loam; plenty good water. Fine wheat land. Lies mostly level. \$20 an a. Good terms. Other good bargains. Western R. E. Co., Ellis, Kan.

ELLIS CO. has one of the best wheat crops ever known. Lots of wheat will make 40 bu. A great country and we still have cheap land \$15 to \$50. M. L. Stehley, Ellis, Kan.

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FRANKLIN COUNTY, KAN. 160 acres very fine land close to town. \$100 a. Neosho county. Kan. 160 acres very fine land \$60 a. Both splendid farms; will trade together or separate for western land or income. Guy Mansfield, Ottawa, Kan.

FOR SALE: 80 acres. Joins the city of Wichita; all level and every foot alfalfa land. Nothing as good around it at \$200 per acre. Price for a short time only \$125 per acre. There is a mortgage company loan on this; \$5000 long time 6%. Wright & Edminster, 415 Fourth National Bank Bldg., Wichita, Kan.

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240 ACRES 6 miles from railroad town, 180 acres in cult. 60 acres in pasture. 100 acres of bottom land. 2 wells, one windmill, 5 room house, stable room for 12 head of horses, granary that holds 3,000 bushels, good chicken house, good cave, 1/2 mile to school and church. Mail route and phone. Price \$40.00 per acre, terms on part of it. A. L. Graham, Real Estate, Stockton, Kan.

FOR SALE. 1/2 cash, bal. 5 years. 400 a. smooth land, all tillable, unimproved. \$22.50 per a. 160 a. little rolling, \$20 per a. in south part Lane Co. 160 a. in Gray Co. at \$25 per a. 40 a. in cult.; all smooth. These are bargains. 80 a. sandy land in Reno Co. to trade for western land. House, barn, good water; all fenced and cross fenced. 25 a. under cult. F. D. Webb, Sterling, Kan.

800 A. FINE WHEAT LAND; well located. Haskell County. \$15 an acre. Mullan & Turner, Dodge City, Kan.

120 A. OIL LAND, COAL POOL. \$4,000, 1/2 cash, balance 10 years at 6%. Bradshaw Realty Co., Lenexa, Kan.

160 A. well improved. 100 a. cult., bal. pasture and meadow. \$65 an a. Exchanges. S. M. Bell, Americus, Kan.

FINE RANCH, well improved; good water and location. \$15 acre. Terms to suit. Holland & Pennington, Coldwater, Kan.

160 A. WELL IMP. 100 cult.; 15 alfalfa, bal. pasture. Creek bottom. No overflow. \$160 income, gas rental. \$45 a. J. W. Showalter, Altoona, Kan.

FOR SALE. 640 acre pasture, 3 1/2 miles from station. Never-falling springs and good grass. 160 acres can be broke. Room for 100 head of stock balance of season. Part cash, time on balance. Address Box 101, Randolph, Kan.

414 A. OF PAWNEE CO. LAND; improved; all fenced. 160 a. in cultivation. \$40 per acre; must sell; for an inducement will give free thirty three-year-old cows and a dandy bull, if sold in 20 days. Possession Aug. 1. 1/2 of all crops go with place. Will carry \$8,000 on the crop plan; 1/2 each year at 7% interest. E. W. Moore, Spearville, Kan.

IDEAL FARM, 800 acres, joining town; two sets of buildings; every acre lays perfect. 250 acres of finest growing wheat; all goes with sale if sold before cutting, which will be about July 1st. Price only \$27.50 an acre and will carry \$10,000 at 6%. No trades; other bargains for sale. Buxton-Rutherford Land Co., Utica, Kan.

120 ACRES FOR \$500. Elk Co., Kan., all bottom; 45 a. wheat. \$5 a. oats, 20 a. corn, 10 a. alfalfa; good bldgs.; immediate possession; only \$7,000; \$500 cash, \$1,000 Sept. 15; bal. \$500 yearly. Be quick. H. M. Mills, 1008 Schwelmer Bldg., Wichita, Kan.

MR. FARMER: You have been thinking about a blue grass and big red clover farm. We have it for sale. Write for special description of any size farm which would interest you. Special price on 320 acres 1 1/2 miles to good town. Exceptional bargain in 160 acres 3 1/2 miles of town. The land to buy for the big increase is land which can be built up by changing the same to clover. Write today for special list of what you want. Mansfield Land Company, Ottawa, Kansas.

SELL LAND AND LOTS AT AUCTION. It is the surest, quickest, most successful method, proven by hundreds of auction sales this season. For terms, etc., write **LAFE BURGER, LAND AUCTIONEER,** Wellington, Kan.

320 ACRES. 6 1/2 miles from R. R. town on Missouri Pacific; all perfectly level and the best of soil. School on the land. Price \$18.00 per acre. 1/2 cash. Balance payable \$400 each year at 4% interest. Scott County Land Co., Scott City, Kan.

1916 WILL BE BANNER YEAR for Graham County on wheat and only 2 corn failures in 15 years. What better record do you want? 3 big crops in succession; land still can be had at \$25 to \$35 an acre, improved farms; lands all under plow. Reville Realty Co., Hill City, Kan.

Choice 160 Acres—\$55 Acre 6 miles Emporia, fine land; 7 room, large barn; orchard, blue grass, alfalfa, corn or wheat. T. B. Godsey, Emporia, Kan.

SCOTT COUNTY IMPROVED 320, level, 5 mi. Manning. Good water, rich soil, price \$15.00, good terms. Wheat lands \$8 to \$20.00. Alfalfa land. R. H. Crabtree, Scott City, Kan.

Best Bargain in the State 160 acres, 2 miles from R. R. station in Logan Co., Kan. 80 acres in cultivation. Clear; price only \$1100. H. A. Turner, Fortis, Kan.

LAND AGENTS Can you sell Southwestern Kansas land? We have the land you want and are well equipped to take care of your customers. Write us. Griffith & Baughman, Liberal, Kan.

Chase County Stock Ranches If you handle stock send for list of stock ranches. Our grass puts the fat on the steer in the summer, and our farm lands grow the tall corn and alfalfa to finish him in the winter. WRITE NOW. J. E. Beacock & Son, Cottonwood Falls, Kan.

640 ACRES fine wheat land; near city. Pure soft water, black sandy loam; nearby land cropped successfully for 10 years. \$15 an acre. Some choice quarters. Geo. W. Finnup, Garden City, Kan.

Southeastern Kansas Is the place to buy land for home or investment. We handle land in eleven counties. Low prices and easy terms. Send for illustrated booklet. The Allen County Investment Co. Kelley Hotel Bldg., Iola, Kan.

GOVE COUNTY this year has produced two million bushels of wheat from one hundred thousand acres. If you want good, rich wheat land at fair prices—\$15 to \$30 per acre—address J. E. Smith, Grainfield, Kan.

QUINTER, GOVE CO. Known as the garden spot of western Kansas. A fine, well improved quarter 4 miles from town; absolutely level; 45 acres pasture, young orchard, water to irrigate garden, close to school. Price \$5,000, 1/2 cash. Possession now. H. U. Porter, Quinter, Kan.

FOR SALE OR EXCHANGE

TRADES EVERYWHERE. Exchange book free. Bersie Agency, El Dorado, Kan.

SPECIAL bargains. Ozark farms and ranches sale or trade. J. H. Engelking, Diggs, Mo.

E. KANSAS farms in Catholic settlements. Exc. Frank Kratzberg, Jr., Greeley, Kan.

CALIFORNIA property exchanged for Middle West, city or country. Wilson-Wilson, 728 Story Bldg., Los Angeles, Calif.

200 ACRES Anderson Co., Kan. Improved; to exchange for clear land or income property. J. F. Ressel, Colony, Kansas.

FLATS, 9 apartments, 6 each inside, modern, stone, \$15,000; clear; exchange for land. John T. Miller, Junction City, Kan.

TWO 40 A., two 80 a. and one 140 a. improved farms Washington Co., Ark. Want mds., trade all or separate. Box 84, Springdale, Ark.

IF YOU want to buy, sell or exchange lands or city property, any place, write us, we can put 'em over. T. C. Pollard & Co., 1009 Commerce Bldg., Kansas City, Mo.

4000 ACRES

Smooth level wheat land 2 1/2 miles from town. 3 sets of improvements. Price \$15 per a. 3200 acres shallow water pump land, 3 miles from town; average depth to water, 30 feet. Write for price and detailed description. Terms and acreage to suit purchaser. John Breneman, Scott City, Kan.

320 Acres

1 1/2 miles of Marlenthal, Wichita Co., Kansas. Good house and barn; well and windmill in sheet water district with enough water to irrigate whole tract. Will sell for \$25 an acre and will carry \$320.00 back on place. Write and tell me your wants. C. A. FREELAND, Leoti, Kan.

C. A. FREELAND, Leoti, Kan.

"Seek-No-Further"

BEST WHEAT LANDS \$15 a. improved farm, 1 mile Ness City, 1/2 m. school, all bottom. 80 a. alfalfa land, fenced and cross fenced, all best quality soil no waste, 240 a. in crops. Bldgs. nearly new, large and fine, good water, etc. This is an ideal home and a snap at \$40. Easy terms. MINER BROS., NESS CITY, KAN.

FOR SALE

1320 acre Missouri River bottom farm in Leavenworth County, adjoining town of 5000 population. Fine corn and alfalfa land; about three hundred acres in cultivation; on Burlington Railroad 30 miles from Kansas City and St. Joseph markets right at door. Price \$75.00 per acre; half cash; balance trade for clear land. What have you? Give price, location, improvements all in first letter. Address J. P. Kanoky, 614 Commerce Bldg., Kansas City, Mo.

Ness County Lands

Good wheat and alfalfa lands at \$15 to \$25 per acre. Fine crops of all kinds in 1914 and better crops in 1915. No better soil in Kansas. Land in adjoining counties on the east \$40 to \$75 per acre. Buy here while land is cheap. Write for price list, county map and literature. No trades. Floyd & Floyd, Ness City, Kansas.

LANE CO.

If you want to buy a farm or ranch, in the coming wheat, corn and stock county of the West, write me as we have bargains from \$8.00 to \$25 per acre. Both improved and unimproved. Let me know what size farm you want and how much you want to pay on the same. W. V. Young, Dighton, Kansas.

WISCONSIN

30,000 ACRES our own out-over lands; good soil, plenty rain, prices right and easy terms to settlers. Write us. Brown Bros. Lbr. Co., Rhinelander, Wis.

TEXAS

BARGAINS, because of liquidation in lands. C. L. Wakefield, Trustee, Republic Trust Company, Dallas, Tex.

SOUTH TEXAS farms \$20 acre up. Productive soil; fine climate; healthful; pure water; ample rainfall; schools; churches; splendid roads. L. Bryan & Co., Beatty Bldg., Houston, Tex.

OKLAHOMA

OKLA. LANDS. 40 to 500 a. tracts. Write for list. Roberts Realty Co., Nowata, Okla.

280 A. imp. bottom farm. Black sandy loam, near R. R. All tillable, running stream, timber, 70 a. in alfalfa. Price \$35 per a. Terms. No trades. W. H. Wilcox, Woodward, Okla.

OKLAHOMA cheap land is getting scarce. The wonderful opportunities for grazing, oil, gas and minerals in this new state has caused it. Some few hundred acres if taken now for \$5 to \$7 per a. Size to suit purchaser. Elliott Land Co., Tulsa, Okla.

FINE CORN, wheat, alfalfa and wild grass land in fine prairie country. Fine climate. \$15 to \$25 per a. Illustrated folder free. E. G. Eby, Wagoner, Okla.

20 A. 2 1/2 mi. business center McAlester. City 15,000; all tillable, dry black loam. 11 a. cult. Fine for truck, fruit and poultry. \$35 per a. Terms. Southern Realty Co., McAlester, Okla.

SMALL RANCH, 480 a. 70 plowed, bal. good pasture, some nice timber, good living water, house, all fenced. Price \$3500, time on \$2,500. You'll have to hurry. Perry DeFord, Oakwood, Okla.

Dewey, Washington Co., Okla.

Located in a splendid oil, gas and agricultural country. Has two steam railroads, one electric interurban, water works, sewer system, electric lights, natural gas, paved streets, free mail delivery, manufacturing plants, two National banks, splendid schools, the best county fair in the state and three thousand live-energetic citizens. Want more folks like those already here. For information, write Joe A. Bartles, Dewey, Okla.

NORTHEASTERN OKLAHOMA

3 miles from Vinita, Craig County.

A RARE CHANCE to buy (from the owner) 550 acres extra strong, level land, two good new houses, two other houses, good barns, windmills, etc. Can be sold as two or three farms. Very small cash payment, balance as purchaser desires. A quick sale is very desirable. W. M. Mercer, Aurora, Ill.

MISSOURI

HOMES in the Ozarks—an impr. 120, \$800. Write for list. W. T. Elliott, Houston, Mo.

80 A., partially improved. Price \$55 per acre. All tillable. Near German settlement. Write for better description. L. O. Arnold & Co., Farms, St. Joseph, Mo.

FOUR MAN'S CHANCE—\$5 down, \$5 monthly, buy 40 acres good land, near R. R. town; some timber; price \$200, \$10 monthly buys 80 a. Write for list Box 425-0, Carthage, Mo.

VERNON COUNTY, MO. At sacrifice, 80 acres prairie; fair impr.; in corn. \$3,000. 1/2 cash, bal. 6%. 195 acres prairie, nice grove, good imp. 40 acres corn, bal. meadow and blue grass pasture. \$10,000; will carry \$5500 at 5%. E. T. Steele, Owner, Nevada, Mo.

80 A. well imp. 70 cult., bal. pasture, Springs and creek. \$3200. Will take some stock. Henderson & McNeils, Stockton, Mo.

FOR SALE. Fine stock and grain farm of 346 acres; well improved; a bargain. Write for price and description. J. E. Tannehill, Garden City, Mo.

Good Cheap Homes

Healthiest climate, purest water, no crop failures, raises all kinds stock, milk cows, raise poultry. 80 acres, 50 cult., house, barn, spring. \$300.00, easiest terms. Jenkins & Hays, Ava, Mo.

Big Bargain for Sale

219 acre farm, 1 1/2 miles out, 250 acres in tame grass, all smooth and valley land. Can use all modern machinery. 7 room house, big barn and other outbuildings; plenty of water. The finest farm in this country. Price \$65 per acre; will carry 1/4 for long time. J. A. Wheeler, Mountain Grove, Mo.

Southeast Missouri Lands

Mr. Homeowner or Investor: If you want the best of farm lands, in the best section of the United States, and at reasonable prices, write for descriptive literature of the rich drained lands where crop failures are unknown. No trades considered. F. S. Bice, Gran, Missouri.

COLORADO

LAND IN THE RAIN BELT in Elbert County, close to railroad. Easy terms. Send for literature. H. P. Verles, Pueblo, Colo.

320 HOMESTEADS

Government land is all taken. I have now four 320 acre homestead relinquishments. Good. \$400 to \$1900 each. Cash. Improved. Write now. E. T. Cline, Brandon, Colo.

IOWA

250 IOWA FARMS for sale. Write the F. L. Jones Land Co., Creston, Iowa.

NEBRASKA

808,812 BUSHELS OF WHEAT 1915.
Free booklet of Cheyenne County, Neb.
Greatest wheat section. Land \$10 acre, up.
D. B. Jones, Sidney, Neb.

FOR SALE. Improved 1400 acre ranch located 1 mile from good town on main line U. P. R. R. in Cheyenne Co., Neb. Price \$17.50 per a. Write for our illustrated booklet. H. C. Casselman, Sidney, Neb.

ARKANSAS

FOR SALE. 39 a., 1 1/2 miles out, well imp. 7 a. orchard, bargain, \$3500. 10 a. tract for auto. Foster & Austin, Gravette, Ark.

FARM LOANS

FARM AND CITY MORTGAGES a specialty. Write us if you wish to borrow.
Perkins & Co., Lawrence, Kan.

NEW YORK

140 ACRES; 14 room house; water piped to house and barn. Only 5 miles to largest shoe factory in the world. Barn 40x44; wagon and tool house; hen house, hog house, wood house. Fruit a plenty; 1/2 mile to school. 1 1/2 miles to railroad town. Good location; old man; will, if sold at once, take \$3300; \$1000 cash, bal. time.
Hall's Farm Agency, Owego, Tioga Co., N. Y.

Farmers

If you have a carload or more of grain, write us before selling. We handle consignments or buy direct from the farmers.
Hodgson-Davis Grain Co.
12-13 Board of Trade, Kansas City, Mo.

Money to Loan on Cattle

We make a specialty of buying stockers and feeders on the market. Write for information. This paper or any market paper sent Free to Customers.
Lee Live Stock Commission Co.
KANSAS CITY AND ALL MARKETS

We Will Send You FREE A Pair of Gloves

These gloves are made Gauntlet style from Automobile Tops and trimmings. They will outwear several pairs of ordinary leather gloves. They will protect your hands and are exceedingly comfortable as they give plenty of finger freedom and they are

Water Proof

These gloves are just the thing for automobile driving or work gloves. They are well made, pliable and durable. We purchased a large supply of these gloves to give to our readers and we want you to write for your pair today.

FREE OFFER

We will send one pair of these gloves to all who send us \$1.15 to pay for one yearly subscription to Mail and Breeze, or free for one three-year subscription at \$2.00. With this offer we will include a year's subscription to Capper's Weekly. New, renewal or extension subscriptions accepted on this offer.
Farmers Mail and Breeze, Dept. G, Topeka, Kan.



Boys—A Genuine Pump Action Rifle

FREE! This Daisy Repeater is a Real Gun. This is a man's gun as well as a boy's gun, and should not be confused with the ordinary cheap air rifle that you see advertised. It is a real gun. Best of all you can receive one of these dandy rifles free of cost to you. The Pump-Action Daisy, Take-Down Model, operates by pulling the slide toward the stock. Fires rapidly from the shoulder, the magazine having a forced feed. A strong and accurate shooter for men and boys. Metal parts in non-rusting gun blue; stock, genuine black walnut, hand polished; adjustable sights; length 38 inches, weight 3 1/2 lbs.

Boys Have One For small target practice this air rifle is unexcelled. We have 5,000 of these new model repeater rifles to give hustling red-blooded boys. We pay all express charges as it don't cost you a penny. Write us at once for our special free offer. Do it NOW.
HOUSEHOLD, Fifth Dept. M.E., Topeka, Kan.

Will Wheat Prices Soar?

Much of Last Year's Carry-Over is Unmillable, Says Rollin E. Smith—1916 Wheat is of a Fine Quality

(Owing to the fact that this paper is necessarily 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.)

THAT the carryover from last year's wheat crop is heavy, but much of it unmillable, is pointed out by Rollin E. Smith of Minneapolis. This means that there really is not as much good wheat on hand as figures indicate; consequently prices may be held down by a figure bogey which has no real backing.

Last fall, owing to the wet harvest in the winter wheat states, English, Dutch and Italian importers received some very poor wheat from the United States. Some cargoes had to be loosened with a pick before the wheat could be unloaded, and great dissatisfaction arose because of the many shipments of wheat that were out of condition. Yet much of this wheat had been inspected in Illinois and graded as No. 1, and it is "common knowledge" in the grain trade that the grades were lowered by the inspection department of Illinois and other winter wheat states because of the poor quality of the wheat. That is, wheat graded as No. 1 last season was of much lower quality than the same grade in other years. Therefore, European importers who contracted for No. 1 received wheat that was such in name only.

This finally, as is generally known in the grain trade, resulted in a cessation of export business in winter wheat, and importers have asserted that contracts for new crop winter wheat will be made with a guarantee that the shipments contain no old wheat. Thus again the question of mixing is raised.

The grain trade was, during the last several months of the crop year, which ended last Friday, June 30, frequently reminded of the immense surplus that would be carried into the new season, overlapping and adding to the 1916 harvest. Yet the members of the trade have not of late taken into consideration the large amount of unmillable wheat in the last winter wheat crop. The bureau of crop estimates placed the amount at 140,000,000 bushels; yet this is included in all estimates of the carryover into the new crop season.

Considerable of this "unmillable" winter wheat will doubtless be mixed with new wheat and ground, and so add to the size of the new crop; but a large percentage of it never can be used.

The uncertainty of the matter, with the great amount of bushels confronting the trade, has up to the present time kept the shortage, which must finally result, from having any market effect. For instance, if it could be definitely known that 100,000,000 bushels of the old crop surplus is so poor that it can never be used, the trade would have something tangible. But as long as country and terminal elevators and farmers' bins contain a large amount of something called wheat, the big figures will have a depressing influence on prices. That is, unless the grain trade should awake to a realizing sense that it has been hypnotized by the fear of figures that have nothing concrete back of them.

Increased crop estimates, fine weather for harvesting, large stocks of old wheat, and indifferent foreign demand, induced a good deal of selling of wheat futures last week, but there was a steady absorption of the offerings by Kansas City traders who think the price is low enough to discount conditions, and who expect an active demand for new wheat because of its superior quality. September wheat moved thru an extreme range of less than 3 cents until late in the session when some reports of black rust in North Dakota suddenly turned the market up with a rush by traders to cover short sales, and the market closed with about 3 1/2c net gain for the week, in September wheat.

Ideal weather prevailed last week for winter wheat harvest. Precipitation was limited to local showers over small areas. A large part of the crop has been cut and threshing is general except in the more northerly regions. The quality of the new crop nearly everywhere is reported to be unusually fine, in contrast with last year's crop, which was so badly damaged by rain during harvest, and the few cars that

have come to market have brought a large premium over the price of old wheat.

A moderate amount of new wheat was sold for export, and some operators expect this buying to continue. Probably the actual forward sales made in advance of harvest have been smaller this year than ever before on this date. That may signify foreign indifference, or it may mean that European buyers will be anxious to get the new wheat as soon as it is available.

Apparently ample supplies of wheat are in sight for the next 12 months in the United States notwithstanding the great curtailment of winter wheat yields. The July government report issued Friday, raised the forecast of this year's crop 44 million bushels over the June 1 prospect, making the total 759 million bushels, which exceeds any previous crop except those of the last three years. This is 253 million bushels less than the final estimate of last year's big harvest, but the carry-over amounts to about 90 million bushels more than a year ago, and an important proportion of last year's crop was

Wheat to Reach \$1.25?

BY CHARLES DILLON.

Farmers ought to get \$1.25 a bushel for the wheat crop of 1916. They are entitled to that price. They ought to store their wheat in proper bins and keep it until the market reaches the right figure.

Don't make the mistake that many farmers made last year. Go to the bank and borrow on your crop, but don't let it go just because you are short of money. The grain broker who gets it will most certainly hold it for the price he thinks he ought to get. Why don't you do it? Banks are conducted for the purpose of lending money. No better security can be offered than wheat in the bin.

Don't let brokers regulate your income. Get into the game yourself; hold your wheat for \$1.25. The war in Europe isn't over, and when it is ended—no matter if it stops tomorrow—your wheat will be in big demand. Hang on to it.

wasted on feed to livestock so that the disproportion is not as great as these figures indicate.

The disposition of last year's wheat crop was approximately as follows:

| | Bushels. |
|------------------------------|----------------------|
| Home consumption | 560,000,000 |
| Seed | 85,000,000 |
| Exported | 250,000,000 |
| Carried over July 1 | 90,000,000 |
| Unaccounted for | 127,000,000 |
| Total 1915 crop | 1,012,000,000 |

The last item, 127 million bushels, unaccounted for, may reflect an overestimate of the crop or it may represent the quantity unfit for milling and wasted, or fed to livestock.

The item, "carried over July 1," is the excess of reserves on farms and in second hands over those of a year ago.

Corn crop news generally was encouraging tho a week of hot weather without rain at this season always starts some talk of probable crop damage.

The government crop report showed only a slight increase in area, with a condition of 82, which is about the same as a year ago, and two points under the 10-year average. The crop as a whole is farther advanced than a year ago.

Receipts of hogs last week at the five Western markets fell short of 300,000 for the first time this year and a new high price position for the year was recorded. The decrease was caused by the Tuesday holiday and the rush of harvest work in the winter wheat belt. Several train loads of hogs arrived from Idaho and Colorado.

Prices last week were the highest this year and the highest ever known in July by 50 to 60 cents. The net gain for the week was about 25 cents. The top price paid was \$10.10, and the bulk of the hogs sold at \$9.75 to \$10. Demand remains large. Both salesmen and packers believe that prices will continue high thru the next three months. October usually brings a big decline in prices to meet the increasing

supplies of November. Countrymen say hogs are being marketed closely. The some sickness is reported from Missouri and Kansas points, the hogs received here, packers say, are unusually healthy.

The average weight of hogs last week was 199 pounds, 3 pounds less than in June and 4 pounds less than a year ago.

Following the holiday of July 4, cattle receipts were much larger than expected, and the market for steers received a material setback, and closed the week 15 to 25 cents net lower. Monday receipts were small and prices stronger, and that evidently encouraged rather liberal shipping. Wednesday the five Western markets received 47,000 cattle, and only about 25,000 had been expected. The expected receipts for the week were about 65,000 cattle, and 97,000 arrived.

Sheep prices advanced 35 to 50 cents last week. Receipts were meager, and local prices were relatively higher than in Chicago, where liberal supplies were reported. The bulk of the offerings continued to come from the West. Most of the lambs sold at \$10 to \$10.75. Some Idaho yearlings brought \$8, and other sheep sold at \$6.75 to \$7.60. Reports from the ranges are that the bulk of the feeding lambs are under contract for October delivery at \$7.50 to \$8, weight at shipping points, and no sort.

Receipts of livestock last week, with comparisons, are here shown:

| | Last week. | Preceding week. | Year ago. |
|--------------------|------------|-----------------|-----------|
| Cattle— | | | |
| Kansas City | 24,725 | 32,200 | 25,175 |
| Chicago | 36,700 | 36,300 | 37,200 |
| Five markets | 97,325 | 111,900 | 90,500 |
| Hogs— | | | |
| Kansas City | 32,100 | 55,650 | 39,311 |
| Chicago | 125,000 | 130,000 | 105,500 |
| Five markets | 379,200 | 320,950 | 250,300 |
| Sheep— | | | |
| Kansas City | 12,000 | 24,625 | 16,800 |
| Chicago | 68,000 | 63,000 | 69,000 |
| Five markets | 136,000 | 161,675 | 157,900 |

A Remedy for Alfalfa Bloat

Alfalfa and clover bloat causes a great deal of trouble at certain times in the year. D. J. Healy and J. W. Nutter of the Kentucky Experiment station have carried on some experiments with animals suffering from bloat, that should be of interest to Kansas stockmen.

Healy and Nutter demonstrated by laboratory tests that alfalfa and clover, especially the fresh, moist blossoms, ferment easily and naturally. The sugar content is changed into carbon dioxide gas. They decided that it should be possible to control bloat by the use of formaldehyde. This treatment was tried with success in a number of cases.

Lad's Oona bloated badly on White clover June 13, 1913. She was drenched with one liter of water containing 40 cubic centimeters of formalin; a block of wood was at the same time placed in her mouth, thus keeping it open. At the end of 20 minutes she had entirely recovered. No bad effects followed this treatment.

Valentine's Valentine 2d bloated badly on White clover May 23, 1915. She was drenched with 300 cubic centimeters of a 4 per cent solution of formalin, and a block of wood was placed in her mouth. At the end of 25 minutes she had entirely recovered. No bad effects followed this treatment.

These and four other cases of clover bloat were promptly and thoroughly relieved by the administration of formaldehyde. Two of these cases refused their dry feed, and suffered diminished milk secretion for a period.

To test the effect of formaldehyde on the digestion and milk secretion, Baronetta's June, while quite normal, was drenched with 300 cubic centimeters of a 4 per cent solution of formalin. For the succeeding two days she refused her dry feed, but ate grass. Her milk was not diminished and at the end of two days she was again normal.

It also was demonstrated that under laboratory conditions urotropin, which frequently is administered in human medicine, and which in the body splits into formaldehyde and ammonia, will act as efficiently as formalin, altho it requires a somewhat larger dose. For the present Healy and Nutter strongly recommend for acute bloating 1 quart of a 1 1/2 per cent solution of formalin, followed by placing a wooden block in the animal's mouth, and gentle exercise. Formalin is a trade name for a 40 per cent solution of formaldehyde gas in water and may be obtained at any drug store for 40 cents a pint. One-half ounce of formalin in 1 quart of water makes the proper solution with which to drench the animal.

Fortunate is the girl whose "best feller" is too proud to fight, drink or gamble.

Many a self-made man would have suited better had he let his wife attend to the job.



WHAT BREEDERS ARE DOING

FRANK HOWARD,
Manager Livestock Department.

FIELDMEN.

A. B. Hunter, S. W. Kansas and Okla.,
128 Grace St., Wichita, Kan.
John W. Johnson, N. Kansas, S. Neb.
and Ia. 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.

PUREBRED STOCK SALES.

Claim dates for public sales will be published free when such sales are to be advertised in the Farmers Mail and Breeze. Otherwise they will be charged for at regular rates.

Combination Sales.

Nov. 6-11—F. S. Kirk, Mgr., Enid, Okla.
Dec. 11-16—F. S. Kirk, Mgr., Wichita, Kan.

Shetland Ponies.

Oct. 24—W. J. Thompson, Dorchester, Neb.

Shorthorn Cattle.

Nov. 8—L. Chestnut & Sons, Geneva, Neb.
Nov. 10—S. A. Nelson & Sons, Malcolm, Neb.
Nov. 22—Tomson Brothers, Carbondale and
Dover, Kan.
Nov. 23 and 24—H. C. Lookabaugh, Watonga, Okla.
Dec. 13-14—Nebraska Shorthorn Breeders' Ass'n, Grand Island, Neb.; Con McCarthy, York, Neb., sale manager.

Poland China Hogs.

Oct. 16—Walter B. Brown, Perry, Kan.
Oct. 18—Fred G. Laptad, Lawrence, Kan.
Oct. 19—P. M. Anderson, Lathrop, Mo.
Oct. 20—Peter Luft, Almene, Kan.
Oct. 20—T. F. Walker & Son, Alexandria, Neb.
Oct. 21—J. F. Foley, Oronoque, Kan.
Oct. 23—Forest Rose, Hemple, Mo.
Oct. 25—Smith Brothers, Superior, Neb.
Oct. 27—T. B. Durbin, King City, Mo.
Oct. 27—Von Forell Bros., Chester, Neb.
Oct. 31—Harry Wales, Peculiar, Mo.
Oct. 31—A. J. Swingle, Leonardville, Kan.
Nov. 1—J. L. Griffiths, Riley, Kan.
Nov. 2—John Kemmerer, Mankato, Kan.
Nov. 6—A. R. Enos, Ramona, Kan.
Nov. 11—S. A. Nelson & Sons, Malcolm, Neb.
Feb. 6—Frazier Brothers, Waco, Neb. Sale at Utica, Neb.
Feb. 7—Smith Brothers, Superior, Neb.
Feb. 8—Wm. McCurdy & Son, Tobias, Neb.
Feb. 24—C. F. Behrent, Norton, Kan.
Feb. 28—John Naiman, Alexandria, Neb.; sale at Fairbury, Neb.

Spotted Poland Chinas.

Aug. 9—H. L. Faulkner, Jamesport, Mo.

Duroc-Jersey Hogs.

Oct. 12—H. A. Deets, Kearney, Neb.
Oct. 13—Proett Bros., Alexandria, Neb.
Oct. 18—Fred G. Laptad, Lawrence, Kan.
Oct. 17—F. J. Moser, Goffs, Kan.
Jan. 22—Geo. Briggs & Sons, Clay Center, Neb.
Nov. 2—Lant Bros., Dennis, Kan.
Nov. 3—W. O. Otey & Sons, Winfield, Kan.
Jan. 23—H. A. Deets, Kearney, Neb.
Feb. 1—Theo. Foss, Sterling, Neb.
Feb. 2—J. H. Proett & Son and H. J. Natchigall & Son, Alexandria, Neb.
Feb. 7—F. J. Moser, Goffs, Kan.
Feb. 8—W. T. McBride, Parker, Kan.
Feb. 10—W. W. Jones, Clay Center, Kan.

Hampshire Hogs.

Feb. 26—A. H. Lindgren, Jansen, Neb.; sale at Fairbury, Neb.
Feb. 27—Carl Schroeder, Avoca, Neb.

S. W. Kansas and Oklahoma

BY A. B. HUNTER.

Frank S. Kirk of Enid, Okla., is announcing two big combination sales, one to be held at Enid, Okla., week of November 6 to 11; the other to be held at Wichita,

December stuff was sired by his great herd boar, Chief Miami, by Miami Chief, P. L. Ware & Son's famous boar. Chief Miami is a big, massive boar weighing right up to the 800 pound mark now and he is not loaded with fat but in good breeding form. He is a wonderful sire as well as a great individual and is one of the really great Poland China boars in Northern Kansas. The sale will be advertised in the Farmers Mail and Breeze.—Advertisement.

S. E. Kan. and Missouri

BY C. H. HAY.

It is only a little over three weeks till H. L. Faulkner, the Jamesport breeder of Spotted Poland fame, will hold his annual mid-summer sale. Mr. Faulkner has held many sales and his offerings have won the admiration of all who have attended, but this coming offering will eclipse them all. There will be 20 great yearling sows of the best possible breeding, bred to the following boars: Honest Abe 62246, by Lucky Judge and out of a Brandywine dam; Spotted Chief 66503, a grandson of Brandywine; Spotted Prince 68788, a grandson of Budweiser, and Bogardus 75308, by Honest Abe. Please keep in mind that these sows are the big, husky kind, that farrow and raise those big litters. They are bred for the last of August and September farrow. The balance of the offering will consist of early spring pigs of both sexes. This will be a grand chance to buy a good herd boar or a few open gilts. Catalogs are ready and will be sent to all who mention this paper. Write today.—Advertisement.

Publisher's News Notes

Something You Will Want.

If your horse has anything wrong with him you are naturally looking for something to get him going sound. Have you tried "Absorbine"? This remedy has been on the market for a good many years and is constantly winning more favor among horsemen. J. L. Hays, 553 West James St., Lancaster, Pa., writes under date of April 26, 1913: "I have been using your Absorbine for some time. I have taken lots of bunches away on sore legs on horses and mules. I had a mule on my farm, and he had a bunch on his front ankle as large as a hen's egg and they all laughed at me when I told them that I could take it away in four weeks with Young's Absorbine. In four weeks the bunch had entirely disappeared and I sold the mule for \$300." Mr. Young will be glad to mail you free pamphlet giving detailed information with regard to Absorbine and what it will do for your horse. Absorbine is sold by leading druggists at \$2 a bottle, or sent direct, charges prepaid, upon receipt of price. W. F. Young, P. O. Box 209 Temple St., Springfield, Mass.—Advertisement.

Remarkable Tractor Success on 25,000 Acre Kansas Ranch.

A striking success of the light tractor is reported from the 25,000 acre Sherman Ranch in Ellsworth county, Kansas. Until recently the bulk of the work had been done with mules, but several were getting old; either some 60 mules had to be bought or tractors purchased. It was finally decided to purchase six 30-H. P. light tractors known as Bates Steel Mules, made by the Joliet Oil Tractor Co., Joliet, Ill. The first cost was less than the cost of the number of animals necessary to do the same work, and past experience had already shown them that tractor power was cheaper than horse or mule power. With two other tractors, the six Bates Steel Mules have listed most of the corn grown, 4,000 acres, this spring. The frame being built high it has a good clearance and can go any place the ordinary cultivator can. The operator rides on the lister or other implement and from there operates tractor and lister or plow. Two men, one working 10 hours in the day and the other 10 hours at night, can list as much ground in a week as four men with sixteen ordinary mules. A powerful headlight is used for night

A Scrub Sire Never Pays

BY E. A. TROWBRIDGE.

Quality becomes more important to profit in livestock farming every season. When labor, land, and feed were cheap it was possible to realize a profit on livestock of an inferior grade, but with the present high cost of these production factors and a constant discrimination on the market against the "scrub," it has become evident that the greatest profit can be expected only from livestock of good quality. It may be possible for the feeder or dealer to make a profit on inferior livestock if he is able to buy it sufficiently cheap and sell quickly, but usually someone has not realized the greatest possible profit

Kan., week of December 11 to 16. If you have any kind of livestock which you wish to sell in either of these sales write Mr. Kirk at once for his plan of conducting these sales. When writing kindly mention this paper.—Advertisement.

Burger Buys Shorthorns.

Col. Lafe Burger, the well known livestock and real estate auctioneer, of Wellington, Kan., has recently got into the Shorthorn business on quite an extensive scale. Col. Burger owns two farms near Wellington, which he is stocking up with Shorthorns. Shorthorn breeders contemplating holding sales will do well to secure the services of Col. Burger as he is not only a good salesman, either on the block or in the ring, but he is an exceptionally strong bidder for Shorthorns at this time. When writing concerning your sale kindly mention Farmers Mail and Breeze.—Advertisement.

N. Kansas, S. Nebr. and Ia.

BY JOHN W. JOHNSON.

Walter B. Brown, Perry, Kan., breeds "big type with quality" Poland Chinas and has claimed October 16 as the date of his draft sale in which he will sell 40 head, consisting of March boars and gilts and December boars and gilts and a few choice sows as attractions. All of the March and

LIVESTOCK AUCTIONEERS.

Hugh B. Huls, Oak Hill, Kan.
Sells livestock, big farm sales; Real Estate. Address as above.

Jas. T. McCulloch, Clay Center, Kan.
References: The breeder: I am selling for every year. Write for open dates.

FLOYD YOCUM
LIVESTOCK and REAL ESTATE AUCTIONEER
ST. JOHN, KAS.

Rule Bros., H. T. & R. D., Ottawa, Kan.
Livestock sales a specialty. Write for dates.

R. L. Harriman, Bunceton, Mo.
Selling all kinds of pure bred livestock. Address as above.

Be An Auctioneer
Make from \$10 to \$50 per day. We teach you by correspondence or here in school. Write for big free catalog. We are also starting a new breed of horses known as "Wagon Horses". We register 25 of the best mares in each county and two stallions as a foundation stock, mares to weigh about 1,250 and stallions 1500 pounds. Stallions must be registered Percherons.

W. B. CARPENTER.
PRES. MISSOURI AUCTION SCHOOL.
KANSAS CITY, MISSOURI
519 WALNUT ST.

HORSES.

SHETLAND PONIES At low prices
Big descriptive catalog 10c. Jno. Dunlap, Williamsport, O.

THOMPSON'S PONY FARM
300 head in herd. All sizes, ages and colors for sale. Kind and gentle and priced reasonable.
W. J. THOMPSON, DORCHESTER, NEBR.

DUROC-JERSEY HOGS.

100 Duroc Pigs ready to ship. Both sex, sired by four different boars. \$12.50 each until July first. Can furnish pairs not related. R. T. and W. J. Garrett, Steele City, Nebraska

DUROCS—RED POLLS—PERCHERONS
Service boars and bred sows. Yearling bulls and young ton studs. Have shipped breeding stock to 25 states. Present offering the best I have raised. Prices always right.

Geo. W. Schwab, Clay Center, Nebr.

BABY DUROCS Choice April pigs from premium stock. Now ready for delivery. \$10 each.
JACKSON & COUNTER, 43 Crawford Bldg, Topeka, Kansas

DUROCS \$20

DUROC-JERSEY HOGS.

The Home of Fancy Pal
Nothing for sale now. Herd header material in my Oct. 17 boar sale at Sabatha. Bred sow sale Feb. 7. **F. J. MOSER, GOFFS, KANSAS**

DUROCS of SIZE and QUALITY
Herd headed by Reed's Gano, first prize boar at three State fairs. Spring boars and gilts, from the champions Defender, Superba, Crimson Wonder and Golden Model. **JOHN A. REED & SONS, Lyons, Kansas**

ROYAL SCION BRED GILTS
April and May yearling bred gilts, by Gano's Pride and Cherry Scion, and safe in pig to Under Graduate, by Graduate Col. Also a few choice late fall boars. Priced for quick sale. **G. C. NORMAN, WINFIELD, KAN.**

Wooddell's Durocs
Covely Wonder by Old Beauty's Model Top, Crimson King by Crimson Wonder IV; Graduate Col. 2nd by Old Graduate Col. heads this herd. Three as well bred boars as head any herd of Durocs. **G. B. Wooddell, Winfield, Kan.**

TRUMBO'S DUROCS
Herd Boars: Golden Model 36th 146175, Crimson McWender 160983, Constructor 187651. Write your wants.
WESLEY W. TRUMBO, PEABODY, KAN.

Duroc-Jerseys
Johnson Workman, Russell, Kansas

Jones Sells on Approval
The top boars from my 80 March pigs at private sale. Also Sows bred to J's Good E Nuff for Sept. farrow. Write for private catalog just out.
W. W. JONES, CLAY CENTER, KAN.

BANCROFT'S DUROCS
Everything properly immuned. No public sales. For private sale, gilts open or bred to order for September farrow. Spring pigs either sex. Pairs or trios not related. Weaned May 1st.
D. O. BANCROFT, OSBORNE, KANSAS
Shipping Point, Downs, Kansas

Duroc boars \$20, sired by Belle The Boy, first prize winner at several state fairs. Duroc gilts bred to farrow this fall, \$25. Baby boars, \$10, sired by Model Top Again, winner of the Hutchinson and Topeka State fairs. Baby gilts, \$20. Any hot not satisfactory can be returned by paying express. **R. W. BALDWIN, CONWAY, KAN.**

Norton County Breeders Association

Samuel Teaford, President **Carl Behrent, Secretary**
Norton County Fair, August 29, 30, 31, Sept. 1, 1916 **H. A. Johnson, President** **Fred Stronwid, Secretary**

HEREFORDS—POLANDS Grover Mischief, a grandson of Beau Mischief heads herd. 85 spring pigs. A annual cattle and hog sale in February. **C. F. Behrent, Oronoque, Kan.**

POLAND CHINAS 12 top Sept. boars by Panama Giant. 5 out of a big Orange dam. 100 Spring pigs. Annual boar and gilt sale Oct. 21 at Norton. **J. F. FOLEY, Oronoque, Kansas.**

Poland China Pigs March and April farrow for sale. Pairs and trios not related. Ship over R. I. or Mo. Pac. All immunized. **Geo. W. Goodman, Lenora, Kan.**

Poland Chinas 10 Sept. gilts by Luft's open or breed them to your order. Boar and gilt sale Oct. 20. **PETER LUFT, ALMENA, KANSAS.**

SHORTHORNS 4 yearling bulls, by Pilot, by the \$700 pound Victorious King. Pioneer, a grandson of Avondale and Whitehall Sultan heads our herd. **N. S. LEUSZLER & SON, Almene, Kansas.**

Percherons—Shorthorns—Polands
October gilts, bred or open, for sale. Hampton Bruce, by Lord Bruce heads my Shorthorn herd. **C. E. Poland, Almene, Kan.**

Percherons—Shorthorns—Polands
18 Sept. and Oct. gilts, by Jumbo Prospect, by Luft's Orange for sale open or bred to your order. **C. E. Whitney, Almene, Kansas.**

Shorthorns—Poland Chinas months' old herd bull, Matchless Prince, got by His Highness. I am keeping his set. Write **J. W. LUGGART & SONS, Almene, Kan.**

COL. W. M. PATTON, Livestock Auctioneer
Devoting my time to the business. Address as above.

COL. C. H. PAYTON Purebred stock sales and big farm sales solicited. Write or phone. Address as above.

Registered Percheron and Belgian Stallions and Mares
30 heavy 3 and 4 yr. stallions, 68 rugged 2 yr. olds. Can spare 25 reg. mares. 24 reg. Belgian stallions. Priced worth the money and you can easily pick what you want from this big bunch. Above Kansas City. 47 trains daily. **Fred Chandler Ranch, R. 7, Chariton, Iowa**

3,000—Horses—3,000

At Auction

Miles City, Montana

July 17, 18, 19, 20

The Miles City Horse Sale Co. will hold their regular monthly Auction Sale beginning July 17th and continuing four days. We will have more than 3,000 horses at this sale, including all grades. Large draft-bred geldings and mares weighing from 1200 to 1600 lbs., broken to harness and just right for the harvest trade. Good draft-bred mares in foal and with colts by side, broke and unbroke. Big boned yearlings, two and three-year-olds. Nice, smooth southerners. Mules of all ages. 2,000 war horses—English, French, Italian and U. S. specifications. They will be sold in singles, pairs, small bunches and car lots. Come to the Largest Horse Market in the Northwest where we always have more than we advertise. Don't forget the dates, July 17, 18, 19 and 20, 1916.

Miles City Horse Sale Company
COL. C. N. MOORE, Auctioneer **GUY CRANDALL, Manager**

DUROC-JERSEY HOGS.

IMMUNE DUROCS: Choice fall boars. Best of blood lines, one and two years old. Every animal guaranteed. E. L. Hirschler, Halstead, Kan.

Big Type Herd Boars

30 big, husky yearling and fall boars, by G. M.'s, Crimson Wonder and Good Enuff Chief Col. A choice yearling by Illustration II and a Golden Model dam at \$50. Herd header prospects. Order quick for first choice. G. M. SHEPHERD, LYONS, KAN.

BONNIE VIEW STOCK FARM

Duroc-Jerseys Bred gilts and spring pigs by A Criticout of sows by Grand Champion Red-A-Walla. SEARLE & COTTE, BERRYTON, KANSAS

DUROC SPRING PIGS

ready to ship. 30 gilts, bred for September farrow, \$25 and \$30. Also a few tried sows, \$40 to \$50. Stock sold from this herd in 105 counties in Missouri, Kansas and Oklahoma. Write your wants to J. E. WELLER, FAUCETT, MO.

CHESTER WHITE HOGS.

IMMUNE O. I. C's. Booking orders for March and April pigs, pairs and trios not skin. A. G. COOK, LURAY, KANSAS

CHESTER WHITE HOGS Fashionable breeding. Excellent quality. Prices reasonable. E. E. SMILEY, PERTH, KAN.

IMMUNE O. I. C's. Pigs in pairs, not skin; also bred gilts. H. W. HAYNES, GRANTVILLE, KANSAS

O. I. C. PIGS Big bone, pure white, Cholera immune. ALVEY BROS., Meriden, Kans.

O. I. C. FALL BOARS for sale. Also booking orders for spring pigs, both sexes. Everything immune. Registered free. F. C. GOOKIN, RUSSELL, KANSAS

Fehner's Herd of O. I. C. Swine Anything shipped anywhere on approval. Write today for prices. Herd immune. Member of either O. I. C. or C. W. Ass'n. HENRY F. FEHNER, Higginsville, Mo.

GREINER'S HEAVY BONE O. I. C's.

Choice bred gilts, boars and spring pigs, descendants of blue ribbon winners; champions and grand champions. All ages for sale at all times. Write circular, photograph and prices. F. J. GREINER, BILLINGS, MISSOURI

Kansas Herd of Chester White Or O. I. C. Swine Pairs and trios not related. Shipped in light crates and satisfaction guaranteed. Pedigrees with each pig. Priced for quick sale. Arthur Mosse, Route 5, Leavenworth, Kan.

POLAND CHINA HOGS.

FAIRVIEW POLAND CHINAS

For Sale: Gilts and tried sows, bred for early fall litters. Also a few serviceable boars and a fine lot of early spring pigs. Write us. P. L. Ware & Son, Paola, Kan.

Original Big Spotted Polands!!

Private Sale—90 March pigs for sale now in pairs, trios or singly. Bred by four of the great boars of the breed. Papers with every pig. ALFRED CARLSON, CLEBURNE, KANSAS

Spotted Poland Chinas

Ten weeks old boar pigs at cut price, also a year old boar. Let me describe them to you. Address CARL F. SMITH, CLEBURNE, KANSAS

Ship On Approval

Choice Poland China pigs ready to ship—can furnish papers and gilts not related. A few serviceable boars and some fall gilts bred or open. The best of big type breeding. All at farmers prices. Ed. Sheehy, Hume, Missouri

Poland China Gilts

Send to your order. Also two good fall boars for sale. Write today. Andrew Kosar, Delphos, Kan.

Oct. Boars and Bred Gilts

All Immune 10 Oct. boars, priced less than half their value to move them quick. Big stretchy fellows.

20 October gilts, bred and open. You can't beat them as brood sow prospects. J. J. Hartman, Elmo, Kan. (Dickinson County)

Faulkner's Famous Spotted Polands

Big Bones, Big Hams, Big Spots The original kind, oldest and largest herd on earth. Ask for midsummer (Aug. 9) sale catalog. Recorded in recognized records.

H. L. Faulkner, 202 Jamesport, Mo.

Big Type Polands!

Herd headed by the 1020 pound Big Hadley Jr., grand champion at Hutchinson, 1915. Fall boars by Big Hadley Jr. and Young Orphan, by Orphan Big Gun that was 1st in Oklahoma Futurity, 1915. We are booking orders for spring pigs out of our best herd and show sows. A. J. ERHART & SONS, Ness City, Kan.

Big Spotted Polands

100 pigs at private sale at 10 weeks old. Both sexes. Pairs and trios not related. I sell these pigs at farmers prices and guarantee satisfaction. Pedigrees with every pig. Write to day.

R. J. BAZANT, Marks, Kan., Republic Co.

when a "scrub" goes to market. If it is not the feeder, it is the man who produced the animal.

At the Missouri Agricultural Experiment station lambs sired by a \$30 mutton ram and out of Western ewes weighed 2.54 pounds more at 3 months of age than lambs out of the same kind of ewes by a "scrub" ram weighed at 4 months. The well-bred lambs were ready for market a month earlier, they ate only about one-half as much feed, and they sold for nearly \$3 more a hundred than did the lambs by the inferior ram.

Just recently two Utah ranchmen are reported to have sold their cattle on the same market on the same day. Both used the same amount of national forest range a head and paid the same grazing fee. One had used good bulls to produce his cattle, and the other had not. The good cattle brought \$40 a head more than the poor cattle.

Whether the livestock is cattle, hogs, sheep, or horses, the good ones are appreciated when sold and consequently bring higher prices and normally yield greater returns. The most practicable means of improvement is thru the use of good sires, for the male may become the parent of from 40 to 100 animals a year.

Study the Breeding Animals

BY D. O. THOMPSON.

Every farmer who keeps livestock must meet the problem of selecting females to be used in his breeding herd or flock; however, a more difficult problem is the selection of males suited to produce the best results when mated with them. Wise selection and mating are impossible without definite knowledge of what constitutes a good animal and ability to discriminate against the undesirable, inferior sire. Through long experience, filled with costly mistakes and equally costly triumphs, some men have learned the art of selection and mating. A careful, systematic study of livestock will enable you to obtain what these pioneers in breeding have discovered by costly experience and the expenditure of much time and money. The successful breeders of purebred livestock in the future must necessarily understand the science of selection and mating and be able to put their knowledge into practice early in life without experimenting for years as has been the case with our forefathers. In other words, they must begin where their fathers quit, and improve our present flocks and herds which already have reached a high state of development. Livestock shows of local, state and national character afford an excellent medium for advertising breeding stock. The knowledge and ability to select animals that will develop into show stock will largely determine an exhibitor's success in the show ring. The breeder who is a good judge of animals and who has the knowledge of show ring standards is in a position to determine whether his stock can compete successfully in the shows.

The man who understands market demands and who has the ability to select animals for the feed lot that will make consistent, rapid, and economical gains throughout the feeding period and meet the market requirements, will find this knowledge a source of both profit and satisfaction.

The farmer who has been a good judge of stock through careful, systematic study will have a degree of recognition and influence in his community that may offer many opportunities for him to meet and mingle with the best informed livestock men, expert judges, prominent breeders and officials of shows and other agricultural organizations. He may thus come in touch with the best methods of breeding and handling stock and with men of affairs, and by his increased knowledge broaden his influence and usefulness to his community and the world at large.

Smuts Cause Loss

Smuts affecting grain and forage crops cause an annual loss to Kansas farmers of millions of dollars, according to a Kansas Agricultural Experiment Station bulletin by L. E. Melchers, assistant plant pathologist. The estimated loss for 1914 alone was nearly 8 million dollars.

If the breeding is right a feeder can do a great deal in bringing a strong litter of pigs.

HAMPSHIRE HOGS.

REGISTERED HAMPSHIRE 150 gilts and sows, all ages. Cholera immune. Satisfaction guaranteed. C. E. LOWRY, Oxford, Kan.

Shaw's Hampshires

150 registered Hampshires, nicely belted, all immune, double treatment. Special prices on spring pigs. Satisfaction guaranteed. Shaw's Farm, Shawnee, Kan.

BERKSHIRE HOGS.

HAZLEWOOD'S BERKSHIRES Bred gilts all sold. Booking orders for spring pigs. Prices reasonable. W. C. HAZLEWOOD, WICHITA, KANSAS

Meadow Brook Berkshires

500 to 1000 Head always on hand. Our sows are the best we can get of all the leading families. We keep 6 to 8 of the best herd boars we can produce or buy. All immune and nothing except good breeding animals shipped. Write your wants today.

E. D. King, Burlington, Kansas

RED POLLED CATTLE.

FOSTER'S RED POLLED CATTLE Write for prices on breeding cattle. C. E. FOSTER, R. R. 4, Eldorado, Kansas.

Pleasant View Stock Farm

Red Polled cattle. Choice young bulls and heifers. Prices reasonable. HALLOREN & GAMBRILL, Ottawa, Kansas

SHORTHORN CATTLE.

PURE BRED DAIRY SHORTHORNS Double Marys (Fistecreek Strain) and Rose of Sharon families. A nice lot of young bulls for fall and winter trade. R. M. ANDERSON, BELOIT, KANSAS

ABERDEEN ANGUS CATTLE.

Aberdeen Angus Cattle Herd headed by Louis of Viewpoint 4th, 190624, half brother to the Champion cow of America. Johnson Workman, Russell, Kan.

HEREFORD CATTLE.

Two Registered Hereford Bulls for sale. One 4 years old (wt. 1950) and one 2 years old. Also some good Hereford stud cows. Mora E. Gideon, Emmett, Kansas

POLLED DURHAM CATTLE.

Double Standard Polled Durhams Young bulls and females for sale. C. M. HOWARD, Hammond, Kansas

JERSEY CATTLE.

Linscott Jerseys

Kansas First Register Merit Herd. Est. 1878. If interested in getting the best in the Jersey breed write for descriptive list. R. J. Linscott, Helton, Kan.

Buy Your Herd Bulls From Us

We have big strong, robust fellows brimming over with type and beauty. We have cows that give 1200 to 1650 lbs. of milk per month. As high as 81 lbs. fat on official test. J. A. COMP, WHITE CITY, KANSAS



HOLSTEIN Cows and Heifers

I have for sale a nice collection of HOLSTEIN cows and heifers, a few registered bulls to go with them. All good big ones, nicely marked, and out of the best milking strains. If you want cows or heifers I can supply you, and that at the right kind of prices. J. C. ROBISON, TOWANDA, KANSAS

J. H. Lee, V. Pres. of Harveyville State Bank; E. W. Lee at Farm; Dr. J. W. Cook, Expert Judge of the Dairy Cow

200 HEAD THIRTY DAY SALE 200 HEAD HOLSTEINS

On account of shortage of pasture we will make very special prices on Holstein cows, heifers and bulls, including 40 cows, fresh and to be fresh within 30 days; 100 heifers, fresh between August 1 and October 1; 15 long yearling heifers fresh this winter and next spring, and bulls of all ages; also high grade calves from our best dairy cows, either sex, 1 to 4 weeks old, delivered to any express office in Kansas \$22.50. Don't wait to write. Bring your dairy expert along, it makes it easier to sell. Let us hear from you by phone, wire or letter.

LEE BROS. & COOK, HARVEYVILLE, KANSAS



TORREY'S HOLSTEINS

Cows and heifers, young springing cows well marked and exceptionally fine; also springing and bred heifers and registered bulls. See this herd before you buy. Wire, phone or write. O. E. TORREY, Towanda, Kan.

Clyde Girod, At the Farm. F. W. Robison, Cashier Towanda State Bank.

Holstein Friesian Farm, Towanda, Kan.



Pure bred and high grade HOLSTEINS, all ages. Largest pure bred herd in the Southwest headed by Oak De Kol Bessie Ormsby 156789, a show bull with royal breeding. Pure bred bulls, serviceable age, from A. R. O. dams and sires. A grand lot of pure bred heifers, some with official records. Choice, extra high grade cows and heifers, well marked, heavy springers, in calf to pure bred bulls, constantly on hand. High grade heifer calves 6 to 10 weeks old, \$25. Bargains. Send draft for number wanted. All prices F. O. B. cars here. Inspect our herd before purchasing. Wire, write or phone us.

GIROD & ROBISON, Towanda, Kansas

GUERNSEY CATTLE.

GUERNSEY Pure Bred Bulls

Breed up your Herd. High class young individuals from Wisconsin, with Advanced Register ancestry at bargain prices. A rare opportunity to secure some of the best blood in the Guernsey breed. Tested for tuberculosis and guaranteed as breeders. Send for List. HELENDALE FARMS, 700 Cedar St., Milwaukee, Wis.

GUERNSEYS FOR SALE

Several choice males for sale.

Overland Guernsey Farm C. F. Holmes, Owner Overland Park, Kansas 8 miles south of K. C. on the "Strang Line"

HOLSTEIN CATTLE.

BRAEBURN HOLSTEINS

A. R. O. bull calves. H. B. Cowles, Topeka, Kan.

BULL CALVES

from cows with official butter and milk records. HIGGINBOTHAM BROS., ROSSVILLE, KAN.

Segrist & Stephenson, Holton, Kansas

Pride winning registered Holsteins. Bulls from three months to yearlings for sale. Address as above.

CHOICE HOLSTEIN CALVES

10 heifers and 2 bulls, 5 weeks old; nicely marked. \$20 each, crated for shipment anywhere. EDGEWOOD FARM, WHITEWATER, WIS.

Holstein Heifers to Freshen Soon

One yearling bull, one eight months and one three. All registered. BEN SCHNEIDER, Nortonville, Kan.

Reg. Holstein Bulls

Two that are eight months old and one four months. Correspondence and inspection of herd invited.

David Coleman & Sons, Denison, Jackson Co., Kansas

Iowana De Cola Walker Heads Herd

besides having some fine record sisters on his sire's side; has an 812.25 lbs. of 8% butter record dam, and his dam has two sisters with 515.2 lbs. and 504.2 lbs. made as senior three year and Tredico Farm, Route 3, Kingman, Kan.

Montgomery County

Holstein Friesian Association

Young stock for sale. T. M. EWING, Sec., Independence, Kan.

HOLSTEIN CALVES

High grade Holstein calves either sex 3 to 4 weeks old from good milking strain of grade Holstein cows \$20 each. We pay the express. Burr Oak Farm, Whitewater, Wis.

CANARY BUTTER BOY KING

Conceded the best Holstein Bull in Kansas. Two extra choice young bulls, sired by him and out of A. R. O. cows. Write for prices.

MOTT & SEABORN, HEWINGTON, KANSAS

This illustration shows Frank Pivonka, Timken, Kansas, using his Big Bull Tractor No. 6417 to plow wheat stubble 6 inches deep. See Mr. Pivonka's letter on other side.



Frank Pivonka, Timken, Kansas, purchased his Big Bull Tractor No. 6417 in July, 1916, and immediately started in to plow his wheat stubble. Mr. Pivonka used a two bottom plow and plowed to a depth of 6 inches. He says that the Big Bull Tractor certainly does the finest kind of work.

The Big Bull Has Made Good Over 10,000 Farmers Say So

Talk to a farmer who owns a Big Bull Tractor, and you'll find a man enthusiastic regarding tractor farming. Why? Because the Big Bull Tractor has made good. Not in just one instance or in just one locality—in 10,000 cases the Bull has made good. More than 1,000 Big Bulls in Kansas alone.

The Big Bull Tractor is demonstrating to hundreds of new owners every month as it has already demonstrated to the mighty army of present owners, that it can be depended upon to do its work unaffected by heat or fly. The Big Bull may be driven to the hardest and most difficult farm tasks in confident assurance that the work will be accomplished efficiently, quickly and at low cost. Those tasks which have been the hardest and most wearing on man and beast under past conditions, are as child's play to the power and efficiency of the Big Bull Tractor.

Here Are the Reasons Why the Bull Is the Most Popular Tractor and Is Giving Such General Satisfaction to 10,000 Farmers

POWER Guaranteed horsepower 7 at the draw bar—20 at the belt. Actual horsepower is 30 per cent greater than that according to brake tests. There are only four gears on a Big Bull, direct drive—all complicated and compensating gears eliminated.

STURDINESS The frame is of staunch construction—to withstand rough service. Every part is big—made intentionally so for tractors must stand rough strains and hard handling.

EASE OF OPERATION Not every man on a farm is a skilled mechanic—it doesn't take a skilled mechanic to operate a Big Bull Tractor. Any man who knows anything about farm machinery can, with a few hours instruction, handle a Big Bull.

SELF-GUIDING It's the most wonderful sight you ever witnessed to see a Big Bull Tractor come "charging" down the furrow without anyone guiding it, and plowing smoothly and evenly, without any "Cut and Cover." The bull wheel and guide wheel run in the furrow—an exclusive patented Big Bull feature.

ACCESSIBILITY The plate on the top of the motor can be removed in a few minutes. The bearings can be adjusted, or even removed. The piston can be taken out if necessary. You can do this when out in the field as easily and quickly as in the barn.

WORK ACCOMPLISHED The Big Bull is designed to pull two plows. The speed is such that the Big Bull with two plows will plow as many acres as slower traveling tractors that pull three and four plows. According to letters received, many farmers are finding no difficulty in plowing with three plows hitched to the Big Bull. Soil conditions govern this.

SUBSOILING An exclusive feature of the Big Bull is the subsoiling of the bottom of the furrow. The bull wheel runs on the bottom of the furrow and the lugs on the bull wheel subsoil 3 to 5 inches—this is in addition to the depth plowed. Over 500 Big Bull owners whom we asked about this subsoiling reported that it increased

crops 10 per cent to 33½ per cent. In many cases the crop increase paid a good part of the cost of the Big Bull.

ECONOMY The first big saving a Big Bull brings to the farmer is the saving of time. Take plowing for instance. One man and a Big Bull will plow 8 to 10 acres in a 10-hour day. You know how long it takes to plow 8 to 10 acres with horses. In amount of work done, in quantity of work done, in economy of operation, the Bull Tractor repeatedly in more than 10,000 cases, has demonstrated its superiority over any combination of men and horses and plows that can be pitted against it.

ADAPTABILITY The idea that a Big Bull Tractor is useful only for plowing is wrong. The Big Bull has year round usefulness on any farm. Plowing, discing, seeding, harrowing, harvesting, road discing, mowing, pulling hedge—these are just a few of the draw bar tasks the Big Bull handles easily. The 20 horsepower on the belt which the Big Bull delivers enables the farmer to do his own threshing, hay baling, corn shelling, wood sawing, silo filling, and other work, at a low cost, and when he is ready to have the work done. The Big Bull earns its keep at all times, and never eats except when it is working.

SERVICE A much abused word but one that has considerable meaning when used to describe the way in which this company co-operates with Big Bull owners. Service is not given by a set of rules. Our idea of service, and our policy, is that every man owning a Big Bull should obtain the work which he has a right to expect from his Big Bull, and we propose to see that he does.

PARTS AND REPAIRS If you want the surprise of your life, get one of our parts books showing the low prices of all parts and repairs. You'll be glad to learn that all parts of the Big Bull are at least 50 per cent lower in price than you have learned from past experience with farm machinery and automobiles to expect.

The Added Features in the 1916 Big Bull Tractor

Not a one of the many features that within four years has made the Big Bull the premier tractor, the greatest farm implement of all time, have been altered. Several improvements are to be found in the 1916 Big Bull that are in a way refinements.

IMPULSE STARTER—No batteries—Standard magnet to with impulse starter—shaft drive—prevents backfire—makes starting safe and easy.

KEROSENE BURNER—The 1916 Big Bull can be fitted with either a kerosene or gasoline burner.

EXTERNAL CONTRACTING CLUTCH—Thermoid lining—single adjustment—no end thrust on bearings—no strain on clutch shifting fork.

METALLIC DUST TRAP—With air heater—eliminates dust from engine parts—is a fuel saver.

RELEASE PULLEY—for belt work permits starting motor when belted without loosening belt.

COOLING SYSTEM—Brass tube radiator—large fan—centrifugal pump forces water through cylinder pockets. Big Bull has run 56 hours without a stop with a consumption of only one pint of water.

SELF ADJUSTING FAN BELT TIGHTENER.

All wheels contain highest type bearings. Heavier front axle. Larger bushings on countershaft. Larger sectional bull gear and roller pinion, with self contained oiling system. Larger connecting rod bolt and in addition there are many minor improvements.

No One Can Question the Leadership of the Big Bull Tractor or its Efficiency, Reliability and Value to any Farmer

The Big Bull has long since passed the experimental stage. It was the pioneer light tractor, and has held undisputed leadership. No tractor that wasn't practical, that couldn't be depended upon to go out and do its work at all times, that wasn't a time-saver and money-saver for any farmer—could sell in such quantities as the Big Bull Tractor has sold and is selling today—more than 1,000 in actual operation by thoroughly satisfied owners in Kansas alone, and hundreds being sold every month. No one can dispute the statement that the Big Bull is a tractor of proved value and efficiency—the greatest farm implement of all times.

If Ever There Was a Genuine Big Value
in Modern Farm Machinery Offered to
You, It Is This Big Bull Tractor at

\$645.00

F.O.B. Minneapolis

Now's the time to buy. Big Bull Tractors are sold through dealers—there's one near you who has Big Bulls ready to deliver. It's no time to hesitate—it's no time to doubt—materials are going up in price and hard to get and you don't want to go through another season without a Big Bull Tractor to help you to farm better, quicker, easier, cheaper, and to make every acre of your land produce bigger, better crops.

SEE YOUR DEALER AT ONCE—IF YOU DON'T KNOW WHO HE IS WRITE TO US OR WIRE US AT OUR EXPENSE.

HALL BROS. & REEVES MOTOR CO., 1526 Grand Ave., Kansas City, Mo.

The Big Bull Tractor will be in the National Tractor Demonstration at Hutchinson, Kansas