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Hog Cafeterias Bring Profits

By R. W. Kiser
Specialist in Animal Husbandry

K29637 Kan State Agri College Mar 19 Business Office

CONSIDERABLE attention has been given to the hog feeding demonstrations being conducted by county farm bureau agents and an animal husbandry specialist of the Kansas State Agricultural college in several counties in the state. Among the most interesting at present are the two which have finished the feeding period and the hogs have been shipped to market. In both instances the hogs topped the market. While this is not phenomenal, it does, however, tend to prove that the methods used are good. The mere fact that the hogs topped the market does not interest one, but the fact that in both cases a fair profit was made by the feeder lends new interest to this form of demonstration work.

One demonstration of interest to the feeder in the northern part of the state is being carried on by Frank Godfredson of Greenleaf, Washington county, Kansas, in co-operation with the county farm agent, R. W. Shafer and the extension division of the Kansas State Agricultural college. In this demonstration 332 hogs are being fed on a ration consisting of corn and tankage in the self feeder with a slop of barley and oil meal fed in the trough each day. At the beginning of the feeding period the hogs weighed an average of 124 pounds, a total of 41,860 pounds valued at $18.25 a hundred pounds. On November 1, or 30 days later they weighed a total of 57,770 pounds, a gain of 16,510 pounds. The average gain a hog in the 30 days was 49.73 pounds or approximately 1⅔ pounds a day.

Charges were made for all expenses during the feeding period. The corn was purchased at $1.70 a bushel, tankage at $5.25 a hundred, barley at $3 a hundred and oil meal at $3.60 a hundred. The total value of the feed consumed was $2,163.55. A charge of $3 a day was made for labor for 31 days and interest on the investment at $50 making a total of $2,306.55 for expenses. A profit of $664.34 was made on the entire lot in 31 days' feeding or a profit of $2.01 a head.

On November 18, one car of the tops of this herd was shipped to the Kansas City market. This car load of 75 head shipped from Greenleaf was purchased by the Armour Packing Company for $17.65 a hundred which was the top price paid for hogs that day. One of the most interesting facts about this shipment was the small shrinkage in weight. There was 25 per cent less shrinkage on this car than on a car bought by the same company which was shipped from Netawaka which is 80 miles nearer to market. The Netawaka hogs were fed on corn and slop and sold for 40 cents a hundred less.

Perhaps, the most interesting of all the demonstrations in the state is the one just completed in Chase county. S. W. Baker of Bazaar, Kan., co-operating with Preston Hale, county farm agent, and the extension division of the Kansas State Agricultural college fed 90 head as a demonstration. On December 3rd Mr. Baker topped the Kansas City market with this bunch of hogs selling them at $17.70 a hundred.

On October 12 these hogs were purchased from a neighbor at 16 cents a pound. Previous to that time they had been running on alfalfa pasture and were fed a small amount of corn. The alfalfa pasture was so situated that running water was provided at all times. These pigs were in a very thrifty condition and were just right to make good gains. They were well bred hogs of a good feeding type.

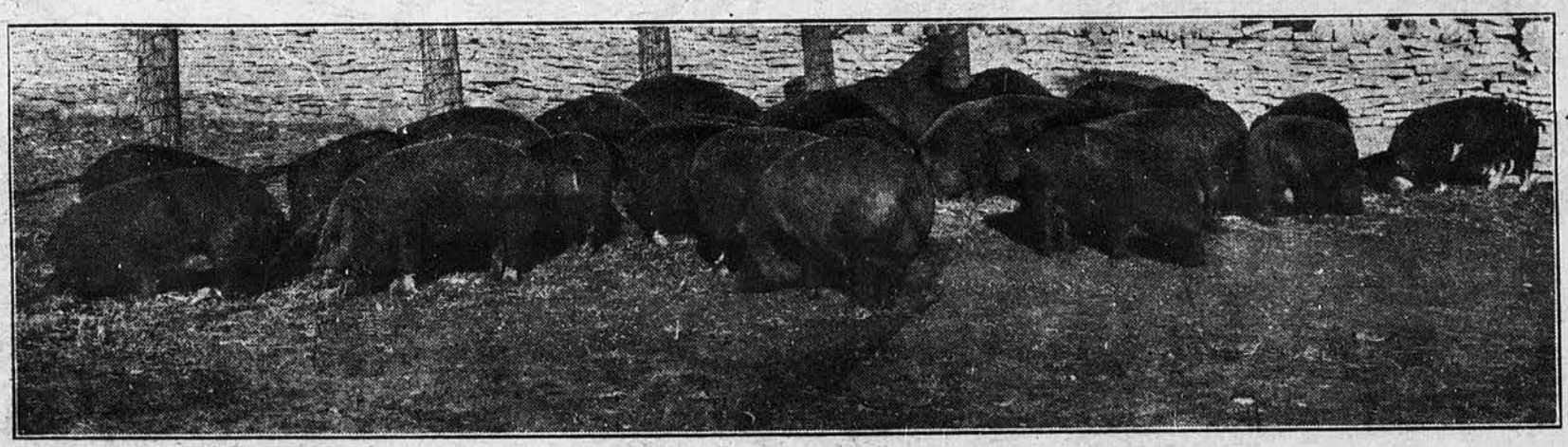
After being weighed on October 12, they were put immediately into a dry lot where they had access to a self feeder containing corn, shorts and tankage. This method is known as the free choice system, meaning that the different feeds were put into separate compartments in the feeder, permitting the hogs to eat as much of each of the feeds as they desire. We mean by this that the hog is permitted to balance his own ration. It is the erroneous belief that the hog will overeat and lose weight, that he will eat too much of some one of the feeds, thus making an expensive feed. It is quite true that the hog can balance his own ration better than can the man who is feeding him. Experiment stations have proved that the hog will eat less tankage when given free choice than he will where fed upon a well balanced ration based upon our best feeding standards.

A few days after these hogs were put into the feed lot the plans were disarranged by having the supply of shorts cut off thru market restrictions on mill feeds. Thruout the remainder of the feeding period they were fed on corn and tankage, free choice. This no doubt cut the profits to some extent as more tankage will be eaten where shorts are not available.

At the beginning of the feeding period the 90 hogs weighed a total of 11,445 pounds. Fifty-one days later, on December 2, after having been driven 3½ miles to the loading station they weighed 20,780 pounds. This makes a gain of 9,345 pounds, an average of 103.83 pounds a head in the 51 days or an average gain of 2.036 pounds a day for each hog.

All of the feed was purchased at market price. The corn cost $1.68 a bushel, tankage $5.25 a hundred and the shorts $1.80 a hundred. The total number of pounds of corn consumed was 44,777 valued at $1,099.61, tankage 2,232 pounds valued at $111.60 and the total value of the shorts $9.38, making a total feed bill of $1,220.49. A charge of $40.71 was made for interest on the investment and $92.45 for labor. The total cost of shipping, yardage and commission was $71.37. All of these charges and expenses make a total cost against the hogs of $3,258.22. The hogs sold for a total of $3,629.70 leaving a profit of $371.48 on the herd, or a profit of $4.12½ a hog in a 51-day feeding period. For each pound of gain the hogs ate 4.782 pounds of corn, .238 pounds of tankage and .005 pounds of shorts. At this rate it cost 13 cents to produce a pound of pork and put it on the Kansas City market. With hogs selling at $17.70 a hundred a gross profit of $4.70 was made on every hundred pounds of pork produced.

In addition to the fact that both of these feeders topped the market on each of two cars of hogs, fed in practically the same way upon practically the same kinds of feeds, there are other factors of more or less importance which enter into these two feeding demonstrations which made it possible for one of the feeders to make a much greater profit than did the other. The type of hog fed may have had something to do with the rate of gain, the grade of corn fed to the hogs may also have had more or less to do with these gains, however, the conditions aside from the feeds and the type perhaps were of greater importance. The hogs fed by Mr. Baker were fed in a lot on the bank of a running stream of clear water. The hogs had access to this water at all times. I have seen these hogs wading in the water up to their backs when there was frost on the ground. In the earlier part of the feeding period the shade of the trees and the cool water (Continued on Page 7.)



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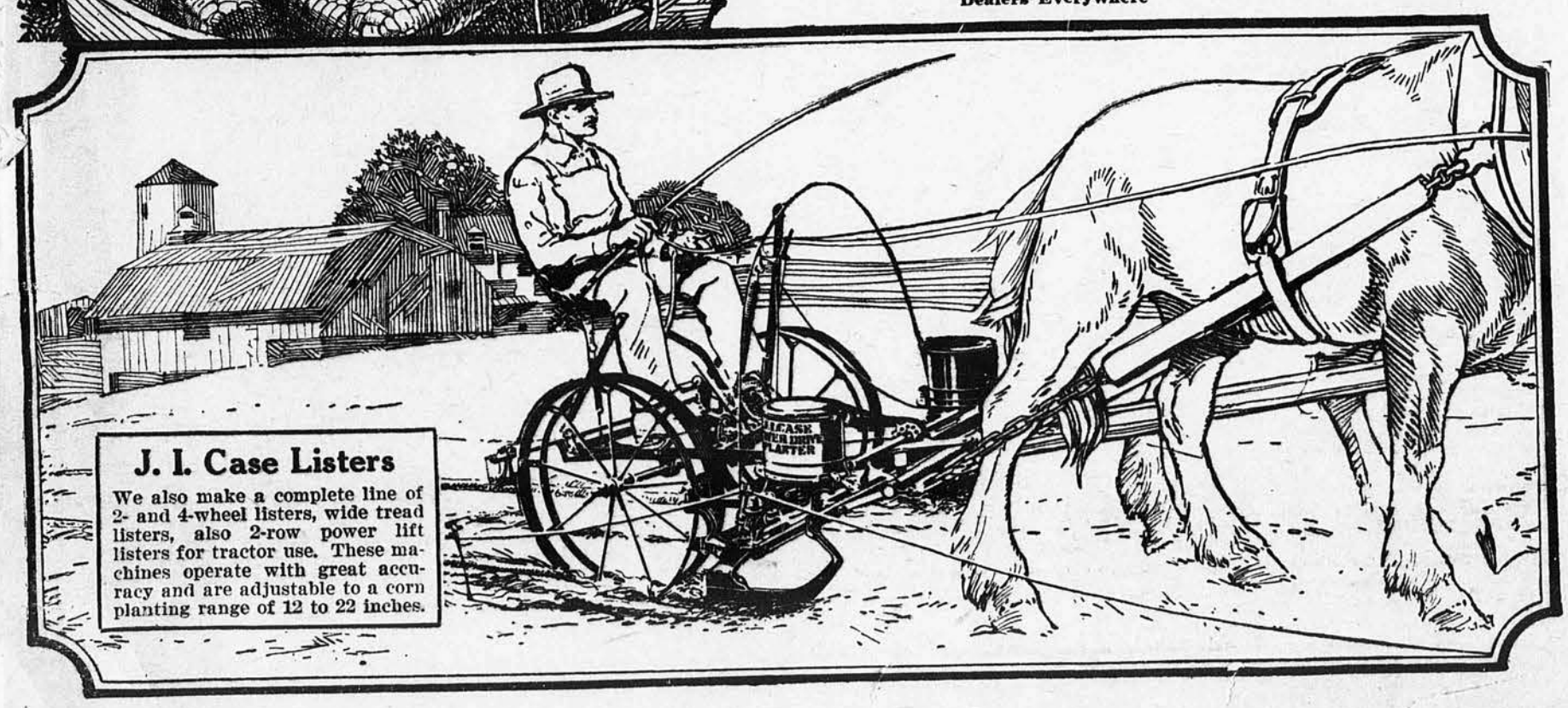
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Kansans Like the Neighborhood Fair

Community Gatherings in the West are Different from Those of the East in the Area Represented as Well as in the Kind of Program Given

By Walter Burr
Specialist in Rural Organization

FAIRS of various kinds have come and gone. There was the big county fair which was once an agricultural event, but in many cases degenerated into an orgy of commercialized amusement and fake advertising. There was the "church fair" with its schemes for raising money for the support of that institution. But the "neighborhood fair" is different—as might well be expected in Kansas.

The first thing that is "different" about the Kansas neighborhood fair is that the area represented in the event is definitely restricted to a "neighborhood." Jimmy Wilson, who is raising pumpkins for exhibition at the fair knows all the other boys with whom he is competing and watches their efforts during the season. He knows that pumpkins from the other end of the county, raised under other conditions cannot be "run in on him." Jessie Smith, who is making an apron to exhibit in the handiwork display, knows every girl who will compete for a prize in that line, and she and her girl neighbors watch each other's progress with



Athletic Sports and Games Enliven the Program

keen interest. An additional advantage of this restriction of the area to a definitely outlined neighborhood lies in the fact that the final exhibit at the fair represents a complete example of that neighborhood's production. A "look-in" at the country schoolhouse on fair day will cause the stranger to feel that he has seen the activities of that neighborhood for the period of a year.

Another way in which this event is "different" is that the commercialized feature is entirely eliminated. One rule that is invariably followed is that there shall be nothing for sale in the way of products, amusements, or "eats," at the neighborhood fair. It is for the purpose of honoring the accomplishments of the local agricultural community and not for the purpose of making money for any individual or organization. This is one of the encouraging evidences that the farm folks of Kansas are not of the mercenary sort but are willing to spend money and time and energy for their ideals of community social life. In most cases it is forbidden even to give money prizes, the idea being that the children and others who bring exhibits should count the honor greater than any money reward that could be obtained. A blue ribbon is the mark of that honor, and comes to mean much more than the dollar would mean.

The county agent and the county superintendent of schools co-operate with the local teacher in arranging the program for the fair, and it is usually most varied in its nature.

The exhibits themselves must be of a varied nature, representing every type of community production. Much care must be exercised here. The gardener would have a garden exhibit; the horse breeder would make the fair a colt show; the farm wife would make it an exhibition of handiwork, baking and canning; the school teacher would have only a school work exhibition. The wise leader understands that all of these interests are represented in the community and sees that they are properly balanced in the exhibits at the neighborhood fair. It is preferable also to allow exhibitions of only that work which has been accomplished during the current year. Canned fruit or vegetables, a quilt or embroidered piece, even when ever so worthy, that has been displayed the preceding year, or oftener, evidences stagnation—as if the community could not move forward and produce something this year to take the place of and excel anything produced before!

Much importance must be attached to the exhibits, as to all the other features of the fair. Of course in comparison with the exhibits at the Topeka Free State Fair, those of the neighborhood fair seem to some outsiders small and insignificant indeed. Sometimes a speaker brought in for the occasion unintentionally assumes this attitude, and where this is the case, great harm is done. He only evidences the fact that he has not sufficient vision to realize the genuine human interest attaching to the exhibits placed here by the home folks, for the view and criticism of the neighbors—an interest which cannot possibly attach to the larger county exhibits at the state fair. These local exhibits will have just as much importance in the estimation of the community as is given to them in the thinking of those who assemble them. It is true of the neighborhood as of the individual:

> Success begins with a fellow's will—
> It's all in the state of mind.
> If you think you are outclassed, you are—
> You've got to think high to rise.
> You've got to be sure of yourself before
> You ever can win a prize.

One of the ways to give proper importance, in the opinions of the people, with regard to the exhibits, is to be careful in the choice of judges. It is never safe to depend upon "picking up" judges at the last minute, just because it is "only a small neighborhood affair." I often have seen corn brought to the fair by boys who had given their best efforts for a year to producing it and selected with the greatest care—to be judged by a willing but ignorant citizen of a nearby town. This man knew nothing about corn, but as a visitor in the neighborhood, was ready to "help" by acting as judge. Can you imagine the chagrin of the boys who had placed the corn on exhibition? What would be their incentive to work hard to produce corn for next year's exhibit? The writer has himself been crowded into service as a judge of the women's handiwork—when in his own home it is a standing joke that he doesn't know the difference between "embroidery" and "crochet work," or between a "quilt" and a "comforter."

It will pay the local committee to be at some expense for bringing in judges who are known to have trained judgment in the things which they are asked to judge. These persons can also be used to advantage in giving short talks after the prizes have been awarded, telling the basis for the judging and suggesting how a better product may be ready for next year's fair, and outlining methods by which the exhibits may be better displayed.

The "program" for the exhibits is planned just as thoroly as the general program for the fair. The committee having this in charge knows before hand just what exhibits are to be brought and where they are to be displayed. Care is taken that



An Outdoor Tent is Often Used for Overflow Meetings

the exhibit program shall begin promptly and close promptly. This means that all exhibits must be in place by a certain hour on a certain day and that no exhibits will be received after that time; also that the prizes will be announced at a certain time and that the exhibits must be removed at a stated time. Where this is not done there will be remaining during a large part of the day vacant spaces on the exhibit tables or walls; exhibits will come straggling in during all parts of the day; persons who think they have to leave early will take their exhibits away before the close of the day, and other exhibits will be left indefinitely on the hands of the committee. Promptness in this matter will have the effect of putting a lot of "pep" into the exhibit feature of the fair.

The fair is made much more interesting where there are outdoor arrangements for livestock exhibits. Let no one minimize the value of exhibiting local livestock in the neighborhood where it is raised. While a fine race horse or show draft horse may be of interest at the International Livestock Show in Chicago, of as great interest in the local Kansas community should be the work horse that has worked the greatest number of days and at the same time come thru the season in the best condition. Also there is the best family driving horse which the "metallic Elizabeth" has not yet put out of business and which will take a prize in the neighborhood fair.

There may be no show animal among the dairy cows of the community—but there is a cow that has produced more butterfat than has been produced by any other cow in that neighborhood and she should be on exhibition at the neighborhood fair to claim the honor. So with the animals on the home farm; if they had no good points we wouldn't keep them there—and we ought to be proud to show these good points to our neighbors.

Watch for the grouch member of the school board (a type not often found in Kansas) who will try to place the date of the neighborhood fair on Saturday "so as not to interfere with school." While we wish to exhibit the sheep and the goats, a school fair is "on the blink" without a good display of "kids." This is Kansas' best farm crop, and the one of which our country residents are most proud. The neighborhood fair should be conducted on what is otherwise a regular school day, so as to give the "kids" a holiday. It will mean more than the "Fourth of July" to them—because whatever advantages "Independence Day" may have, it lacks in the child estimation the advantage of "letting out school" for its observance. If the fair is on a school day, and the children are made free for the occasion, they feel that it is peculiarly theirs, and in such an event the co-operation of the young people counts for much.

This is the occasion for the school entertainment. It is well if, following the idea of the "exhibit," the entertainment may take the form of an exhibition of what the children have been doing at school during the year. One of the most attractive entertainments I ever have enjoyed at the schoolhouse fair was made up entirely by the dramatized presentation of the reading lessons which the children had been studying and reciting during the year, and a "rapid-fire" contest in numbers.

Sometimes a neighborhood fair may well begin with an evening meeting and continue thruout the following day. This evening meeting may then be in the nature of an entertainment, such as a drama or a pageant. While the rule to make no money out of any feature of the fair for any individual or organization is still strictly adhered to, yet if a considerable amount is to be spent on the fair itself in the way of expense money for judges, speakers, or anything else, in some cases this money is obtained by making a minimum admission charge for the preceding evening entertainment. When this is done the fact is always given publicity that the money so obtained is to pay the expenses of the neighborhood fair to be held the following day, which is "all free."

For this evening entertaining feature there may be obtained any one of a number of plays and pageants which have a bearing on rural community development. The rural service department of the Kansas State Agricultural college frequently renders assistance in preparing such programs applicable to local conditions.

In the right sort of a neighborhood fair the neighborly dinner is not to be overlooked. Here, again, there is need of real planning. At what hour shall we begin the dinner? Where shall the tables be obtained and where shall the dinner be served? Who shall have the responsibility of calling the citizens together for this purpose? Too often no arrangements are made for these details, and where this is the case people stand about or sit in uncomfortable postures, merely "consuming food" in a less pleasurable way than they would have the same midday meal in their own homes. In almost any country school house arrangements can be made to at least place wide boards lengthwise along the top of a row of school seats and desks with a board bench down the aisle to provide seating facilities. The boards can easily be removed for the afternoon meeting. Of course this is not ideal, but its practice may bring the people to see the need of a new school building which really can be made a community center, with basement dining room and kitchen.

Plays and games should not be neglected as a feature of the neighborhood fair. All of the old time sports such as the "sack race," the "free for all" race, the "wheel barrow race," and others, will be found worth reviving for this occasion.

The idea of the neighborhood fair is to make it a "get together" event. Whatever is done must be done by all the folks at the same time. Neighborhood games on such an occasion will go far toward destroying any animosities that may have unfortunately developed in the neighborhood.



Family Groups Watching the Events of the Day

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Passing Comment—*By T. A. McNeal*

Wheat Prices for 1919

I AM receiving a great many letters from wheat raisers who are in doubt about the government guarantee for a minimum wheat price for next year. I had supposed that the matter was settled. Certainly every wheat grower had every reason to suppose that the government will guarantee a minimum price for wheat in 1919 as it did in 1918. I would suggest in view of the apparent doubt which exists, that every wheat grower get busy with his member of Congress and ask him to do what he can to have the matter definitely settled. There were many millions of acres of wheat sowed this fall because the farmers supposed that they would be assured of a certain minimum price. It would be an act of very bad faith on the part of the government if it should be found that this is not the case.

Now it may be that the demand for wheat next year will be so great that the price will go above the guaranteed figure, or what was supposed to be the guaranteed figure, but there is grave danger that speculators will so manipulate the market just at harvest time that farmers will not get the benefit of the rise later in the season. The safety of the wheat grower depends on having a minimum guaranteed price.

This is only fair, not only because the farmer had every reason to believe that the government would guarantee the price, but because last year the price guaranteed worked a hardship on the wheat raisers of the country in that it resulted in their getting less for their wheat than they could have gotten if the government had not interfered.

Why Make War Material?

"We have been told," writes John Harvey, of Richmond, Kan., "that America entered the war to put an end to the military idea; that this was to be the last war. Now one of the questions being discussed is what part the submarine shall be allowed to take in future wars. A large part of the time of the Peace Conference will probably be taken up in making rules of war. If the delegates to the Peace Conference are really in earnest they should provide that the manufacture of war material shall stop, not in one country, but in all.

"What legitimate use is there for submarines, machine guns, cannon, high power rifles, torpedoes, mines, grenades or even war vessels? Of course the powder factories and arms companies can find plenty of reasons but anyone who is not a militarist can see no use in making war material. If a league of nations should provide that no nation should manufacture any war material and that should any nation begin to manufacture army munitions all the other nations would immediately cut off all communication, postal, financial and commercial, and if the offending nation still persisted in manufacturing such munitions, then the league would raise an army from all the other nations and force a stop. Do not wait until the offending nation has been preparing for 40 years. Here we are, talking the loudest about ending war forever, while last week the papers stated that Secretary Baker is advocating a standing army of 500,000 men and making the cantonments into permanent training camps to train all the boys of the country from now on. Secretary Daniels states that we have started on a naval program that will give us a navy equal to the best in seven years. With what consistency can President Wilson ask Great Britain to give up her navy or other nations their standing armies?

"The only way to stop war is to stop the manufacture of war material and all preparation for war. I have been out the word from the that now all our sacrifices this part of Kansas are going to be consistent or strike who advocates any form of militarism. Every man always said that a standing army is useless; that any man who will join the army in time of peace is no good. I will venture the assertion that not over one-half of the regulars ever got to the front lines. If you cannot think so just inquire what troops are at Leavenworth, Riley and all the other posts and cantonments and have been all the time. The boys who have entered the army since April, 1916, are the ones who have done the fighting."

I agree with Mr. Harvey largely, but it is not certain that to cease manufacturing modern munitions of war would insure permanent peace. Nations went to war and fought most bloody and devastating conflicts before there were any modern weapons and might do so again. Indeed, one of the contentions of the advocates of military preparedness is that it would be much easier and less expensive for nations to go to war if there were no modern weapons or munitions. Whether this is true or not I am in favor of stopping the manufacture of submarines, cannon and other weapons made solely for war purposes. I realize, however, that something more than this is necessary if the world is to be saved from future wars. There must be a world-wide moral awakening coupled with a world-wide education showing the utter folly as well as wickedness of war.

I think Mr. Harvey is mistaken in regard to Secretary Baker. I do not believe that Mr. Baker has advocated either a standing army of 500,000 or universal military training. The military advisory board at Washington has recommended a regular army of 500,000 but I have not seen where Secretary Baker has given it his indorsement. I may say here that in my opinion it will be impossible in this country to raise a regular army of 500,000 by voluntary enlistment. And also that it will be impossible to raise a navy of 300,000 men such as Secretary Daniels is quoted as favoring, by enlistment.

Prior to the war the authorized strength of our regular army was, I believe, 115,000 men, yet it was impossible to get enough enlisted men to keep it up to that number, altho the whole country was placarded with seductive colored posters setting forth the advantages and delights of army life. Small as it was, our regular army was gradually filling the country with deserters with rewards offered for their capture. Army life does not appeal to the American young men who have any ambition. It will not appeal to them any more strongly after the war than it did before. It will be impossible to get 500,000 young Americans to enlist in a regular army fashioned as our regular army is. Before the war it was impossible to get enough enlisted sailors to man what ships we had. The total personnel of our navy prior to the war was less than 60,000. After the excitement of the war is over it will not be possible to get 300,000 young Americans to enlist as common seamen.

I must, however, disagree with Mr. Harvey about the fighting qualities of our regulars. They may not on the whole have been the highest type of young American manhood. I am speaking now of the old regular army recruited before the war; but they certainly were good fighters.

Not the Kansas Language

Governor-elect Allen is quoted as making a very eloquent speech before the convention of governors in favor of universal compulsory military service. If correctly reported, I deeply regret that such a speech was made by the incoming governor. I have no doubt it was an eloquent speech for Henry Allen scarcely ever makes any other kind, but he is not talking the Kansas language. From every part of the state I am getting the opinion of the people on this subject. I do not pretend to know what the sentiment may be in the East, but unless I am more deceived than I ever have been in my life the sentiment of the people of Kansas is overwhelmingly against such a policy. Here are just a few expressions in addition to those heretofore quoted: A member of the Republican county central committee of Doniphan county writes me, "The 25 million men drafted for the purpose of putting down German militarism together with their friends will snow under any party which puts militarism in its platform."

Another reader at Sedan, Kan., writes, "We have received several letters from the boys at Camp Mead expressing their opposition to military a ning. The commander of that camp delivered camp. last week before 60,700 men of that quested all who reclusion of his speech he re- they would re-enlist. There elieved from service vast number who stood up. That left from this were opposed. I attended a public sale today who there was a large crowd present. I sounded the sentiment as nearly as I could and found but one man in five hundred who was in favor of military training and he was a German by birth.

"I have just been reading your editorial in the December 7 number of the Farmers Mail and Breeze on the danger of militarism," and I agree with you and with Dr. Sheldon most emphatically. England is opposed to military training in her schools and colleges, yet here in our country the government is going direct to the colleges with proposals to put in officers' training units, claiming the need of military prepared officers to command armies that will have to be raised to fight in the near future. Could there be greater folly after what the world has experienced? I do not believe, however, that the military mad men will be in the majority. They will not if public sentiment is created against the madness." Henry is not talking the Kansas language.

A Co-operative Corporation Farm

I have written a great deal about the possibilities of a co-operative corporation farm which would be conducted in the most up-to-date, business-like and scientific manner, and which would provide the social and educational advantages not possible on the separate individually owned and conducted farm.

I find that there is some misapprehension in regard to my plan. Some have gotten the idea that it is sort of a communistic theory I am advocating. Nothing could be further from my thought. I do not believe in communism. I think it is unworkable and fundamentally an error. Communism makes the least efficient the unit of production. It stunts ambition and offers no incentive for individual effort. What I have in mind is to apply to farming the same business principles which have made great corporations a success, but I want the corporation so organized and operated that it will not enrich a few to the detriment of the many.

The farmers of this country, while the most essential industrial class, are the only class not organized, and as a result are most at the mercy of those who buy their products.

Until very recently I have not seen an opportunity to put this theory into practice but I believe that such an opportunity may now be at hand. I get my information concerning the land in question from Festus Foster, of Topeka. In the state of Wyoming is a tract of land lying at the foot of the mountains. Here is a large area of naturally exceedingly fertile land which can be irrigated from a large mountain lake. The amount that can be irrigated is not definitely known, as a complete survey has not been made, but Mr. Foster estimates that from 20,000 to 40,000 acres can be irrigated and possibly more than that amount. A water power can be developed of from 10,000 to 20,000 horse power. This power could be used to light and possibly heat the houses in the central corporation town. It could also be used to provide power for such manufacturing concerns as would be necessary to convert the raw product of the corporation farm into the finished product. If thought best the power could be sold to the mining companies located near the land in question. By selling the power Mr. Foster estimates that an annual revenue of half a million dollars per annum might be derived.

Forty acres of irrigated land is ample for a family, so that in case 40,000 acres could be irrigated there would be room in the co-operative corporation town for 1,000 families. Estimating the average size of the family at five persons this would call for 5,000 people for the farming needs. Just how many would be necessary to take care of the various manufacturing industries and other things connected with the town I cannot say; possibly from 500 to 1,000 people, including men, women and children.

Here then would be a population of perhaps 6,000 people. The general plan would be to take over the irrigable land and, perhaps, the water power. The capital stock would be sufficient to pay for the land, the necessary dwellings and other buildings, the necessary farm implements, stock, etc., to operate the farm and other industries. Each resident within the corporation would be a stockholder and only resident stockholders would have the right to vote for the election of directors. Each stockholder would be entitled to one vote and only

one, regardless of the amount of stock owned. The stock would be transferable but it should be the object of the board of directors to place practically all of the stock in the hands of resident stockholders. The board of directors would be given general authority to conduct the business of the corporation, employ a general manager and such assistants as might be necessary.

It has been suggested that before anything is definitely determined concerning this location, two or three men of well known reputation and judgment be selected to go and make a thoro examination of the land and water power, the character of the soil, the probable cost of building material and possibilities of market. The names of three men have been suggested to me—Henry J. Waters, former president of the Kansas State Agricultural college; President Jardine, now at the head of that institution, and Ex-Governor Stubbs, of Lawrence. I do not know whether these gentlemen can be induced to take the time and trouble to make the examination but they would be good men to send. If they reported favorably steps would be taken to organize the corporation substantially along the lines I have indicated provided a sufficient number could be obtained who would desire to go into such a corporation.

In order to test this matter I am going to ask any readers of the Farmers Mail and Breeze who would be willing to become stockholders in such a farm corporation to write me. Writing does not involve any obligation or financial outlay on your part except the cost of the sheet of letter paper, envelope and postage stamp. If you want more definite information concerning the Wyoming land inclose a self addressed and stamped envelope in which to return answers to your questions. I shall rely on Mr. Foster to answer these inquiries. In this connection I might say that it is hoped that Secretary Lane of the Department of the Interior may be interested in this project and that he will send a representative of the Department of the Interior to co-operate with other gentlemen in making the examination referred to above.

Also if the corporation needs capital, as it probably would, it is hoped that the government, thru the land loan bank, would loan so much as might be required. I will have no financial interest in the corporation because it will be impossible for me to associate myself actively with it, but I have a great desire to see the experiment tried out under as favorable conditions as possible. If you are interested write me and if you want reply send self addressed envelope.

Utilizing the Water Power

It is said that Edison has perfected an invention by which the water power of small streams and even brooks can be harnessed and combined so that a power worth while can be obtained and utilized for lighting nearby towns and providing water power for manufacturing purposes. In the hilly country especially, there are numerous small streams, insignificant when considered separately, but each having a considerable amount of power. By harnessing a number of these little streams together a large water power can be developed.

One of the great future developments in the United States will be the utilization of its great water powers now unused. The theoretical water power of the Kaw River for example at the average flow, as estimated by engineers, is not less than half a million horse power, of which perhaps 300,000 horse power might be saved. In order to make this power available it would no doubt be necessary to straighten and canalize the river. By straightening the river from Junction City to the mouth, the channel could be lessened to one half its present length. This would serve several useful purposes. First, it would largely prevent destructive floods, for the reason that the flood waters would only have to travel half as far as at present in order to reach the outlet. This would enable the river to carry much more than twice as much flood water within a given time as at present. Secondly by cutting the length of the channel in two the average fall to the foot would of course be doubled and the power increased in a much greater ratio than that.

By canalizing the river the water at ordinary stage would be confined to a narrow channel and the power in that way concentrated. In canalizing the river I assume that there would be established storage basins as there are along all canals to hold flood waters to be utilized in time of low water in reinforcing the flow so that the water might be kept at about the average flow all the time.

I do not have the figures at hand showing the total amount of power used for manufacturing, lighting, and street cars, in the cities and towns located along the Kaw, but it is safe to say that the total will not aggregate nearly 300,000 horse power. I do not think the total would be more than half that amount. If my guess about that is anywhere nearly correct, the development of the water power of the Kaw would provide all the power now required in these cities and towns and double the present requirements.

The theoretical water power of the Missouri river from head to mouth is about 10 million horse power. The best method of harnessing this vast power is a problem for engineers but I have no doubt that it is a problem that can be solved. I think it quite possible that if the present undeveloped water power of the United States were developed, electricity could be supplied so cheaply that it would be the least expensive fuel that could be used. Then would smoke and soot from furnaces and manufacturing plants be abolished. Heat as well as light would be turned on and off by the mere pressing of a button.

When I think of the great need of labor and capital in the development of resources and the bringing about of conditions for the greater comfort and happiness of mankind I am filled with indignation and amazement at the utter stupidity not to mention the wickedness of the leaders of the nations who preach that war is necessary. In the great world war now happily ended, enough capital and labor have been wasted to have developed all the water power of the United States and built in addition a magnificent system of hardsurfaced roads from ocean to ocean and from the lakes to the gulf and still have tens of billions left for other useful purposes. The cost of building 2,000 hardsurfaced roads from the Atlantic to the Pacific estimating the average cost a mile at $15,000 would be something less than 100 billion dollars. The direct cost of the world war together with the value of property destroyed certainly will aggregate 200 billion dollars and this does not include the enormous loss of man power by the killing and permanent disablement of more than 16 million young men. And all this loss was brought about by the wickedness and stupendous folly of not to exceed 50 men at the outside. Sometimes when I think about it I do not wonder that the world is threatened with a universal flood of Bolshevism and anarchy.

More on the Cotton Question

I am in receipt of a very well written article by C. R. Chapin, of Allen, Kan., on the subject of cotton and cotton prices. I regret that I have not the space to publish the article in full.

Mr. Chapin has evidently made a considerable study of the subject and reaches the following conclusions:

The condition of the cotton grower is entirely different from that of the wheat grower. The cotton grower receives for his product only a small fraction of the value of the finished product, or cotton goods. On the other hand, the wheat grower receives for his product the larger part of the value of the finished product, or flour, altho the cost of manufacture does not differ greatly, counting the cost in each case in terms of percentage of the finished product. Likewise the returns to the cotton grower for daily labor and the net returns for the season are less than the returns to the wheat grower. The cotton grower can plant and cultivate but few acres, while the wheat grower can grow many acres. A great deal of hand work is necessary in hoeing and picking cotton. Children begin working in the fields when 8 years old. The school term is not arranged to give the best education possible but to allow the child to work in the field as much as possible. Cotton is produced at the cost of neglecting education. The mother, too, must take her pick sack and "go to the end of the row and back again."

The amount of cotton put on the market is limited, not by the amount that can be planted and cultivated, but by the amount that can be harvested. It requires six months from planting to mature a good crop of cotton. The harvesting, or picking, is slow work. In the Northern part of the cotton belt the climate prevents growing and harvesting of a large crop. In the Southern part, the boll weevil prevents it. In the North it is much of the time too cold to pick cotton in the winter. In the South, the best method, in fact almost a necessary method of fighting the boll weevil is to starve it out by turning under the cotton plants before frost. Even when this is not done where the weevil abounds, it destroys the late set bolls so that there is no cotton to pick in the winter.

For years the nations at war have been using large quantities of cotton in the manufacture of explosives. There has been increased demand. This year the supply has been cut by drouth. The supply is reduced. It cannot be increased greatly in another year. Cotton is as necessary for armies as wheat. It would be possible for our armies to subsist and fight for a short time without wheat but they could not fight without explosives. It may be necessary to use a substitute for cotton in the manufacture of explosives. It would not seem advisable at this time to take any step which might lessen the production. In considering the question of fixing the price of cotton there are other things to bear in mind beside the fact that the price of wheat has been fixed.

The present price of cotton is only about one-third the price at the end of our Civil War. The price of wheat is nearly as high as at that time. The price of corn has lately been 10 times as high as a few decades ago. It would seem that if anything is to be done in regard to price fixing, the price of cotton should be increased or the prices of other articles decreased, as cotton is not as high proportionately as other products.

In the case of wheat the allies competed with each other to obtain needed supplies. The price soared. The United States government stepped in and fixed a price profitable to the wheat grower and just to all. Such a condition does not exist in the case of cotton. The allied nations do not and will not compete with each other in obtaining supplies. Fixing the price of wheat did not establish a fair price for flour and bread. It became necessary to regulate the miller and the baker. When the government fixed the price of the wheat crop, it also guaranteed the price of the next year's crop. That is not necessary in the case of cotton. There will be no over-production in the near future. Whether the War continues or ends; whether or not a substitute for cotton is used in the manufacture of explosives, there will be a demand for all the cotton that can be grown. I believe that you are sincere in your stand for the people against the profiteers and hope you will investigate the cotton question impartially. I feel confident you will find conditions substantially as stated herein and trust you will use your influence toward getting justice for all.

C. R. CHAPIN.

On the other hand Frank E. Harvey, of Ottawa, has been studying the figures defending the cotton prices as published in the Farmers Mail and Breeze of October 5, and says that figuring on the same basis it costs $6.20 a bushel to raise wheat. Of course Mr. Harvey concedes that such an estimate of the cost of raising wheat is absurd.

Compulsory Military Training

As a people we entered the war to destroy militarism. At the expense of thousands of lives and billions of treasure, we have accomplished what we set out to do on the battlefield. We are yet to accomplish it at the peace table. Meanwhile a determined effort is to be made to have Congress adopt universal military training as a permanent national policy, regardless of popular opinion. The bill as prepared goes beyond the "milk and water" Swiss system. It more nearly follows the Prussian system which our military leaders always have admired.

While we are moving in this direction England is even considering doing away with conscription. Lloyd-George, England's great war premier, is telling the English people in his speeches: "If you want a permanent peace; if you want to prevent the horrors of this war from being repeated you must put an end to conscript armies on the Continent of Europe. The first thing to do," the premier repeatedly emphasizes in his addresses, "is to make it impossible to have these great conscript armies in the future."

Yet in the face of such utterances great effort will be made in this country to compel every American youth to undergo compulsory military training that we may have a huge conscript army at our call.

In a terrible lesson, history has just taught us that widespread military training and large armies promote a powerful military class, and that this inevitably breeds the war spirit. It is no secret that we have a wealthy and a powerful jingo element in this country which is as power-mad and as keen for war profits or preparing-for-war profits, as ever the Prussians were in the beginning. It has great dreams of trade conquest and commercial empire. It is for seeking the annexation of the world's trade thru strong-arm methods as well as thru aggressive merchandising, and with our Krupps, it wants and is working for a big army and a whopping navy. This powerful element is doing what it can at the present time to ridicule and postpone consideration of the League of Nations, and it is behind the universal military training system—strong.

I don't mean to say all advocates of universal military training are militarists. They are not. There is the man or woman who has found that the training, the discipline and the regular hours and regular habits of the camps were of benefit to most young men. There is this much good in three to six months of camp drill.

The Prussian system was founded on compulsory military training. It became a war machine which dominated everything. A war machine is not a peace preserver. It prepares for "a day," then sets the day or goes to meet it. The experience of our colleges and universities with the Student Army Training Corps was disrupting in every case. Military authority immediately dominated all activities. College work was a joke.

It is not to give our young men this training for their own sake, that inspires our jingoes. That is talked simply for propaganda purposes. It is a militarized nation they are after. They are careful to say they do not mean the German system, but the training bill they have drawn calls for nine months' service from every young man and is intended to build up a large corps of reservists. The original general staff bill declared for 11 months' training, and in its memorandum to Secretary Baker the general staff frankly said, "The ideal toward which we must strive is two years' compulsory training."

This war has shown it is not difficult to obtain and train huge numbers of men in a short time, that the only difficulty is in equipping them. The need is for having standardized gauges, jigs and dies ready in order that transformed factories can turn out arms and material quickly. With from three to six months' training our drafted men have proved equal in valor, aggressiveness and initiative to the most seasoned troops of Europe. A general quoted by General Crowder said of them, "These men you have sent to the colors have proved the equals of the veterans of France and England." And he might have added, of Germany.

A big navy, the present enlarged army plan, and our national guard system, would seem to be quite sufficient military safeguards for us, unless the world shall enter upon another destructive resource-and man-power-consuming contest in armament. This is not likely unless we set the fashion and so compel it. Europe is a wreck. It is financially exhausted. Its people abhor the name of war. What news for the Peace Conference to have it flashed to Europe. "The United States has adopted universal military training."

The war just ended has filled the world with woe and imposed enormous burdens upon us for years to come. We shall not live to see the last of them lifted. Shall we again and immediately start a war-wrecked world around the circle that must inevitably lead to another war?

Arthur Capper.



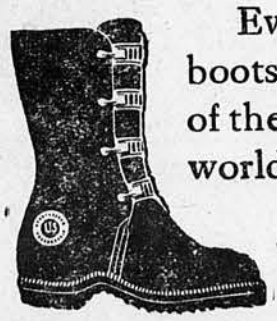
You Can Now Get a Pair!

The trenches in Flanders are empty and it is no longer necessary to keep supplying the boys "over there" with U. S. "Protected" rubber boots.

So, instead of making trench boots almost exclusively as we have been doing, we have reverted to our before-the-war manufacturing program, and will soon make up the shortage that exists in the supply of heavy-service, double-duty U. S. "Protected" rubber footwear.

Uncle Sam has furnished "our boys" with the best rubber boots that money can buy, and, in both the Army and Navy, there probably are as many U. S. "Protected" rubber boots as all other brands combined.

Outdoor workers everywhere recognize the dollar-for-dollar value of "U. S." quality. It means rubber boots of the sturdiest construction, reinforced where the wear is greatest, yet entirely comfortable. Longer wear insures saving of money.



Every pair of U. S. "Protected" rubber boots bears the "U. S. Seal"—trade mark of the largest rubber manufacturer in the world. Look for it. It is your protection.

United States Rubber Company
New York

U. S. Rubber Footwear

Farm Engineering

BY K. J. T. EKBLAW

Rubber Restrictions are Removed.
No Importations Until February 13.
Construction of Pneumatic Tires.
Interesting Manufacturing Process.
Long Staple Cotton Required.
How the Tread is Applied.
Strength and Resiliency Essential.

THE War Trade Board announces, in a new ruling, that all restrictions upon the quantity of crude rubber which may be imported from overseas have been removed. Applications for licenses to import this commodity will now be considered without limit as to quantity. It is also announced that the War Trade Board withdraws the Government option price and will require no further undertaking relative to maximum values. Careful consideration has been given to the advisability of eliminating the requirement of guarantees, but it has been found necessary to require these undertakings for the present.

This relaxation, however, will not authorize the importation of any shipments of rubber from any country other than the country of origin. Applications for import licenses for such shipments will not be considered until after February 13, 1919. The same policy will be applied to applications for licenses to import shipments of rubber now in the United States which have been made in violation of the regulations.

Air is necessary for life and for the really successful motor car tire. No satisfactory substitute for it in either case ever has been discovered; we know that it never will be for the first, and we are extremely doubtful if if ever will be for the second. If we only realized it, much of the success and development of the modern motor car has been due to the pneumatic tire. An automobile is subjected to just about as hard usage as any machine can be, and were it not for the pneumatic tire affording a fine soft cushion for the whole contrivance the continual vibration and jarring would soon rack it to pieces.

All kinds of substitutes for pneumatic tires have been devised, but springs and perforations and packings never have given the resiliency required. There is something about the elastic qualities of plain compressed air that simply cannot be duplicated. When a properly inflated tire is struck a heavy blow, as occurs when a rapidly driven car strikes a stone or other obstruction, the force of the blow is softened and distributed thruout the whole tire as a result of the perfect elasticity of the enclosed air, and the occupants of the car barely feel the shock. Gums and other plastic fillings used to take the place of air in tires, never have proved very satisfactory. Of course they possess a great advantage in that penetration of the tire results in no disagreeable consequences, and perhaps with some people and under some conditions this is an overwhelming argument in their favor.

The manufacture of pneumatic tires is an exceedingly interesting process. While much of the process is mechanical, some of it must be done by hand, and of course hand-work cannot approach the uniformity resulting from machine work; this in a great degree explains why two tires purchased at the same time from the same maker, may give entirely different degrees of service. When we know the many opportunities for imperfections that can occur in tire-making, perhaps we will be a little more charitable in our attitude toward, and a little more reasonable in our demands upon a commodity that really does remarkably well, everything considered. Pneumatic tires now give thousands of miles of service where the first invented ones gave only hundreds.

The ordinary pneumatic tire has only two items in its make-up—rubber and cotton. The rubber is of varying grades—that in the interior is soft and flexible, that on the exterior of the bead is a little harder, while that in the tread, which takes the wear of the road, is the toughest that can be produced, yet is rather soft and pliable. A great deal of the quality of the tire depends upon the preparation of the rubber for the portion of the tire for which it is designed.

The cotton that is used is the best grade of long staple, carefully woven and inspected so as to be as nearly perfect as possible. The cotton sheets are thoroly impregnated with raw rubber, which is pressed in both sides under extremely heavy pressure, then out of the sheets long bias strips are cut. These strips are wrapped around an iron tire mold—that is, as a steel tire is laid around the felloe—the tension being maintained by mechanical means so as to insure uniformity. The purpose of bias cutting the strips is to permit of easier shaping, and to prevent threads from raveling tangentially. The rubber must be perfectly clean, and the cloth absolutely dry, for any particle of dirt would result in a grinding action, while moisture would turn into steam and blister the tire in curing. Several plies of this rubber impregnated cloth, or "frictioned fabric," as it is called, are applied, depending upon the manufacturer's ideas and upon the size of the tire. The edges of the plies are rolled back and kneaded into the bead. Next the "breaker strip" is applied; this is a strip of coarse fabric laid over the "carcass" of the tire to protect the fabric in the carcass from the impact of road inequalities. It is covered with a layer of pure rubber for a "cushion."

Following the breaker-strip, the tread is applied. This consists of a rather heavy strip of extremely tough rubber, designed for maximum wear. It may be smooth, or rugged to prevent skidding. Front tires usually are smooth, since they are not likely to skid, and since an irregular tread would make steering somewhat more difficult. The irregular tread is desirable for the rear wheels, since it gives them better grip on the road surface.

To give the tire durability, the rubber in it must be "cured" or subjected to heat. Some makers use the "one cure" or unit mold process, in which the tire is entirely built upon an iron core, when put into an iron tire mold and vulcanized under hydraulic pressure in an open steam vulcanizer. This may be modified, not using a mold, but wrapping the tire with cloth strips and then vulcanizing it. In the "two cure" process, the carcass itself is partially vulcanized as in the unit mold method, then the partly vulcanized tread is applied and the whole tire is given a second vulcanization. After cleaning and trimming up the rough spots, and a careful inspection, the tire is ready for the market.

Strength and resilience are absolutely essential in a tire. The greater the number of plies of fabric, the greater the strength, but the less the resilience, and vice versa. Too many plies make possible greater internal friction, resulting in heat and a deterioration of the tire. It would seem logical then to use a minimum of strong plies of fabric, and just enough rubber to give wear equal to the life of the fabric. This is just exactly what is being attempted by makers of "cord tires." In these the plies of fabric are replaced by layers of tightly wrapped cord prepared for maximum strength. The cost of cord tires is greater than ordinary ones, but this is counter balanced by longer service, and better riding qualities.

Our Two Best Offers

One old subscriber and one new subscriber, if sent together, can get The Farmers Mail and Breeze one year for $1.50. A club of three yearly subscriptions, if sent together, all for $2.

France is now producing about one gallon of milk where 2½ gallons were produced before the war. Available milk in Paris has been selling lately for 32 cents a quart, but its use is limited principally to young children and the sick.

Jayhawker's Farm Notes

BY HARLEY HATCH

The Wheat Acreage in Kansas.
Government Estimates Too Low.
Christmas in Pioneer Days.
Soil Types in Coffey County.
Phosphorus Needed for Fertilizer.
Miss Wooster Demonstrates Canning.

FOR THE last 10 days the weather we have had may well be described as "soft." There have been frequent showers and many cloudy days together with some fog—in fact, a pretty good imitation of Pacific coast weather in winter. We do not like this at all and are very glad to see our old Kansas sun shine out as it is doing today, December 21. Last August I thought at times I never wanted to see the sun again but after being without sight of it for 10 days I don't wonder the inhabitants of cloudy, misty countries were sun worshipers in the days of old.

The weather of late has been too wet for wheat altho the crop still looks well. I think no harm will result unless we have continuous freezing and thawing and it may dry up before that kind of weather arrives. Kansas has such an immense acreage in wheat that our hopes have pinned their faith mostly to that crop this year and for that reason we would like to see the rest of the winter dry. Because of the condition of the ground I think that wheat pasturing is about over for this season.

I note that the report of the U. S. Department of Agriculture credits Coffey county with 65,000 acres of wheat sown this fall. I take round numbers leaving out anything less than thousands. In my opinion this is too small by at least 15,000 acres. Last spring the assessors found, in round numbers, 40,000 acres of wheat in Coffey county and I am sure this acreage has been doubled. I know of no neighborhood in this county unless it may be along the Neosho River in which the acreage sown to wheat is not twice as great as one year ago. Indeed, most neighborhoods will show more than 100 per cent increase. For that reason I estimate that Coffey county has 80,000 acres in wheat this fall. I also note that Kansas is credited with having between 11 and 12 million acres now in wheat which is the largest acreage of any one kind of grain ever sown or planted by any state in the Union.

At one time during the last week the roads dried up sufficiently so that we could go to town in the motor car to buy what was needed for Christmas. When I saw the Christmas crowds in town I could not help comparing them with the ones which used to be seen at that time in our younger days in another state. At that time wagons were the only vehicles in use by farm folks and in consequence most of the women and children remained at home. Booze was also plentiful then and many men used the time as an excuse for "tanking up." Often men would drive in from the farm, hitch their teams along the street and hike for their favorite saloon. Our little town had about 600 persons and counted five saloons. Perhaps that team would stand on the street until the town marshal took pity on it and had it taken to a stable where it might stay for one, two or even three days. Those boozy Christmas days might have been pleasant for some of the men folks but they were certainly anything but happy for the women and children watching and waiting for those who had gone to town.

We had our farmers' institute after all. When the storm prevented holding it on the first day advertised we gave up hopes of having any but the college notified us that if we wished they would send down speakers at any time we might choose so December 19 was selected by those in charge and H. J. Bower was sent to talk to us on soils and Miss Wooster of Emporia was sent to give a canning demonstration. The day selected, while not stormy, was cloudy and gloomy with hints that if it wished to rain it could do so at any time. The roads were also very heavy and that kept many away for if Kansas people cannot now travel by motor car they are most likely to stay at home. Despite the weather, however, we had about all the Sunnyside schoolhouse would comfortably hold and all felt well repaid for coming.

Mr. Bower told us that our soils in this neighborhood, of which we have three types, were very similar to that of a great part of Southeastern Kansas. Our three soil types are the limestone, sandstone and shale formations. The best of these is the limestone which comprises nearly one-third of the four neighboring school districts. The sandstone soil is found in isolated spots and does not comprise more than one-fifth of the neighboring soil area. All the rest is the common upland smooth prairie with a subsoil of shale formation called by many "gumbo" or "hardpan" altho it is neither true gumbo nor hardpan. There is no fault to be found with the quality of soil above this shale formation, the only fault is that it often is not deep enough. Such soil lacks drainage and suffers most from extremes of wet and dry weather. Such soil is the best of grass land and when left in native grass is most valuable. It also possesses good fertility and when moisture conditions are right will raise 30 to 40 bushels of corn, 30 to 50 bushels of oats and 20 to 35 bushels of wheat to the acre without fertilization.

If this smooth upland prairie with its heavy subsoil is reasonably well cared for I think it will in the end prove to be our best soil. It lies rather level and washes little, does not leach and does not blow. In other words it "stays put" and land of this character which has been farmed for 50 years and reasonably well cared for is producing as well as when new. Both the limestone and sandstone soils are better drained and produce better when new but as they usually lie on slopes they are likely to wash and by so doing lose fertility faster than by cropping. Mr. Bower said that the element our soils mainly lacked was phosphorus but that if we used a good rotation and saved and hauled out all the manure made before it leached out we could keep up the fertility of our soils fairly well. It is much easier to keep up a soil already fairly fertile than to build up one which is run down.

I observed that Miss Wooster was very busy with her end of the program and that the women were much interested in her solution of their canning problems. And there have been many problems in the canning business this year, too. Last year it seemed that everything which was canned kept perfectly but this year when the same rules were followed much stuff was lost especially peas. The weather is blamed for this and so I am hoping we do not have the same brand of weather in 1919 that we had in 1918. Altogether we had a successful institute and the plans are being laid for another next winter.

Hog Cafeterias Bring Results

(Continued from Page 1.)

served a good purpose as both are a necessary part of the equipment in a feed lot. Mr. Baker believes that access to shade and cool running water saves from 25 to 50 per cent of the feed bill.

A self feeder, the details of which were planned by the specialist in charge and Preston Hale, county farm agent, was used by Mr. Baker. This feeder is so arranged that it will feed either shelled corn or ear corn. Mr. Baker fed the shelled corn while on the farm of Henry Schrump, another demonstrator, ear corn is being fed from a feeder built on identical plans. Blue prints for this feeder can be obtained from the extension division of the Kansas State Agricultural college.

Send us short letters about your farm experiences.

10,000 More Farmers Every Year



In engines, as in all other farm machinery, the modern movement is toward light weight.

A few years ago, many farmers could not understand how a Cushman, weighing only 40 to 60 pounds per horsepower, could do as much work, and run as steadily, as an engine weighing 200 to 250 pounds per horsepower.

Since then the Cushman light weight idea in engines has swept the country, and almost every farmer now understands that weight does not mean power or steadiness, and that a Cushman is so well balanced and governed so accurately that it does not need a large base and heavy moving parts.

That is the reason 10,000 more farmers now choose Cushman Engines every year.

Now Choose One of the All-Purpose

CUSHMAN

Light Weight Farm Motors
Weigh only one-fourth as much

as ordinary farm engines. Light weight and higher speed mean more jobs, easier handling, less waste of material and fuel and steadier running. Cushman Engines are the standard light weight engines of the world.



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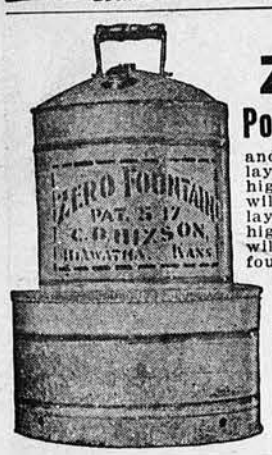
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Letters from Farm Folks

Rural Friends Discuss Better Roads, Hog Prices, Killing Gophers, Pasturing Wheat, and Raising Kafir

READERS of the Farmers Mail and Breeze are requested to make free use of its columns to express their views on any subject that they consider of interest to the public. Next month we would like to have our farmer readers give us a heart to heart talk on their farm experiences this year. Address all letters to John W. Wilkinson, Associate Editor, the Farmers Mail and Breeze, Topeka, Kan.

For Better Roads

It seems that everybody has written about what they want and about everything except good roads, and with your permission I wish to unburden my mind on this subject. We have some good roads but there are more of the other kind. In going over them the first thing you know you hit a very rough place for a few yards that will nearly throw a person thru the top of the car before you know it.

Again you run into a mud hole and get your car all muddy. This is aggravating to some. In fact I don't feel good myself when this happens. I feel like saying something but I don't. I would like to say something to the road master and ask him why he doesn't fix those bad places right away instead of dragging the road for miles and for hours at a time. He takes his ease as he rides the drag. Perhaps he thinks he gets pay for the riding which he does in place of the work he ought to do. Now why not take a scraper and fill up those little places where the water stands in the road so it will not get muddy, and then drag it? Often we start out in the car and could go say 10 to 20 miles and not get in the mud but we remember two or three short places where there is mud and we can't get around them so we wait for a few days. Now ask your neighbors if this is not so. When a farmer wants to take a load of wheat or anything to town he could go all right if these holes were filled up, but on account of these few places he can't go for he will get stuck in the mud. He knows the road. He knows just where and how bad the mud holes are, so he will have to wait until the road is all good, or put on two teams where one would pull the load all the rest of the way with ease. These places have been there for years and will be there for years to come if someone doesn't come along and fix them. I have thought many times if I had a spade along with me, I would stop and put in a few spades of dirt at the bridges just next to the outside boards where there is nearly always a jump up and a jump down.

Hutchinson, Kan. P. W. Pedigo.

Fixing Prices for Hogs

I wish to give you my opinion about the hog price minimum fixed by the government. Let me say right in the beginning that it is quite a difficult matter to arrive at a price that will be fair to all parts of the United States on account of the difference in the price of feed and cost of transportation in the different hog feeding states. However, I do believe that if there was an honest attempt made by honest men who wanted to do justice to both producer and consumer they could work out a much better arrangement than we now have. Altho the price fixed now is high in some states it is far too low in other states. The present plan seems to me to have been made on the advice of the five big packers.

A better arrangement would have been to allow the 13 to 1 ratio to stand as the government promised and instead of taking the average price of corn in the states where it was cheapest and then fixing the price of hogs in Chicago as the price to be paid it would have been better to make a separate price for all the principal livestock markets such as Chicago, St. Louis, Kansas City and Omaha.

Then with a market like Kansas City I would ascertain the price of corn in every county in Kansas and Missouri from which hogs were shipped to that market. If for example in Wyandotte county, which is close to the Kansas City stockyards, corn could be bought for $1.25 a bushel for the last eight months, I would make a price of $16.25 a hundred to be paid producers in Wyandotte county, plus the freight from the loading station to the Kansas City stockyards. Corn in Ellsworth county has been selling at approximately $1.60 a bushel for the last eight months. That would give the producer $20.80 plus freight to the Kansas City stockyards.

Now in Illinois and Iowa I am told that corn on the farms can be bought at an average of $1 a bushel and barley at 75 cents a bushel. That would make the price to be paid for hogs in those states about $13 a hundred plus the freight to nearest marketing center. For most of them the best market would be Chicago. This arrangement would give all the producers in the different states the price of 13 bushels of corn for each 100 pounds of hog, and all would be treated alike.

Some persons may think it would be very difficult to market hogs on this plan, but I am sure it could be worked to the satisfaction of all provided the government compelled the packers to be honest. The way bill would show the county and state from which the hogs were shipped and the prices determined for that county would be the price the packers would have to pay. I think the government has now and always has had ample power to compel packers to kill and dress pork for a fair consideration.

It is almost too late now to change, as almost all the stock and breeding hogs have been sold in many localities, as in the one in which I live. The government made a great mistake in the beginning not to call in men like Henry J. Waters who could and would give them competent advice.

However, as long as the government permits the big packers to do as they please, there will be no justice or satisfaction to either producer or consumer. Some of the big packers should be treated as highway robbers and should be controlled so that they could not rob both rich and poor as they are doing at present.

I have just read in some of the papers about recent experiments showing that when corn is bought at $1.70 a bushel and tankage at $110 a ton, pork can be produced at 13 cents a pound, but I doubt the truth of this statement very much. Possibly in some of the big hog markets a man might buy a load of shotes with little or no flesh on them and also with but little in their stomachs at the time they are weighed, and then he might take them out and give them good heavy feeds and they will make rapid gains. But what did the producer who sold those shotes get for his feed and care of the shotes up to the time he sold them? The only honest and fair way of estimating the cost of raising a hog is to take a number of sows at least a month before they are bred and keep a close account of all that they eat and of all the expenses involved in their care until they wean their litters and add this to the other costs of care and feeding of the shotes until they are sold. Such records kept for a period of five years would give you dependable data for a reliable estimate of the cost of raising hogs. It is like raising wheat; no two years are alike and only by averaging thru a period of years can you get anywhere near the correct cost.

Arthur A. Patterson.

Ellsworth, Kan.

To Kill Gophers

In the last issue of the Farmers Mail and Breeze I read an inquiry from E. E. L. of Larned, Kan., who desired to know how to get rid of gophers. I have used two methods and both are satisfactory and successful.

The first method is by the use of poison. Cut up carrots, potatoes, or apples into small cubes. Take some powdered strychnine, cut a slit into the cubes and insert a small amount of the powder and then squeeze the slits together. Then locate the runways of the gophers, and push a stick down into them and thru the hole drop some of the poisoned cubes. Wash your hands thoroly before preparing the bait and not have them smelling with tobacco or anything else. The gopher has a very good smeller and he has no use for tobacco or other strong smelling weeds.

The second method is the use of gas. Run your motor car into the field that is infested with the gophers. Take a rubber hose and slip one end over the exhaust pipe that comes out of the muffler and put the other end of the hose into the gopher's runway or tunnel and tamp the dirt well around it so the gas can be forced into the runway. Readjust the carburetor a little so as to feed a rich mixture and make the engine smoke good and strong. Run the engine for 25 to 30 minutes and pretty soon you will see smoke coming out of the ground all around you. That is a sign that the gas is filling up all the runways in that neighborhood and that it is smothering to death all the gophers that are within its reach. A few years ago I had hundreds of gophers on my place but I killed all of them with these two remedies. J. D. Hasik.

David City, Neb.

Pasturing Wheat

Those who are taking in stock to pasture on the wheat are getting all the way from $3 to $4 a month for pasturing each mature animal. During good weather there is probably money in it for both persons but when the ground gets thoroly soaked it is a losing proposition for the owner of the wheat to have the stuff upon it. If the stock are taken off it is a losing proposition for the owner of the stock for after having run on the wheat they are no longer content with dry feed and if deprived of the green feed for a long enough period will shrink and lose all the gains that were made on the wheat pasture. On my farm it has been found advisable to pasture the stock on the green stuff in the mornings and at night give a ration of either alfalfa or other roughness. In this way their appetite for both green and dry feed is kept whetted up.

A great deal of the wheat before the snow came was pastured this fall in this part of the state. For milk cows there is nothing that excels a rank growth of wheat. It surely produces the milk.

On account of the location of the wheat on my farm the milk cows were pastured on the rye but they do not relish it as they do the wheat nor are they doing as well on it. This is the first year we have tried rye for a long time but during war time, when we were forced to use substitutes, we decided that we might just as well raise our rye along with the wheat so with the 90 acres of wheat, 15 acres of rye was put out. This rye was put on ground that we wish to get seeded to Sweet clover and some time during the latter part of the winter the clover seed will be scattered broadcast over the field. At harvest time the rye will be cut as high as possible in order that the stubble may shade the young Sweet clover plants. W. H. Cole.

Cedarvale, Kan.

Darso Better Than Kafir

There will be many who will be disappointed in their kafir yield when the threshing machine tells the real number of bushels they have. The weather, during the summer and early fall, was of such a nature that even kafir was retarded in its growth. The heads came out it is true and filled in such a manner that to the casual or careless observer the kafir had the appearance of being a good crop but a more careful examination shows that this view is wrong.

As a rule the head proves to be nothing more than a clever camouflage, seed on the outside all right but nothing on the inside. A well developed head of kafir is seed from the outside to the center.

Usually when any new sort of a grain is introduced we let "the other fellow" try it out and if it does well under local conditions we try some of it the following year. For that reason when a grain called Darso was brought into this locality last spring we passed it up. Now we wish heartily that we had planted the whole farm to it for as a drouth resister it seems to have kafir and cane, as well as feterita, outclassed. In hardness it more nearly compares with White kafir. The feeding value also appears to be about the same as White kafir. The stalk grows to about the same height as kafir but is sweeter and as a feed more nearly resembles cane. There will be a large acreage of Darso planted here next year.

Cedarvale, Kan. W. H. Cole.

A Garden for Every Home

A Small Plot May Yield Much Pleasure and Profit

BY P. H. FORBES
Address Before Kansas State Horticultural Society

THE home garden must be a home affair. The members of the home must have a part in it, or it will not be a home garden at all—just plain garden, or the fad of some member of the home. The home garden will reveal the tastes of the family, and will be mutually enjoyed by them. This discussion will have served a good purpose, if it shall induce some to start a real home garden. If there is any space at all, there is room for the garden. The important thing is to make use of all the space there is. A very small plot can be made to yield much pleasure and profit. Burbank is said to have tried to answer the question as to how much land is necessary to enable a man to make a living from it, by saying 1,000 acres for an Indian, 100 acres for a farmer, 10 acres for an orchardist, 5 acres for a gardener, 1 acre for a seed and flower man, but for an experimentalist like myself, a graveyard lot will do." This enforces the point I would make.

Note Character of Soil

Let the beginner study the space that may be at his command, note its limitations, such as poor soil, and shade of trees or buildings. Possibly he can remove a tree to advantage. He can greatly improve the soil conditions of the larger tract, and doubtless correct them in the smaller plot. After facing the actual conditions, he will be able to decide upon his plantings, both permanent and annual. While there will be no two home gardens alike, I surmise that the ones to give the greatest pleasure will be mixed gardens. They will contain vegetables, fruits, flowers, vines, shrubs and trees. "Impossible," you say, "on my small plot of ground." Study your ground and new possibilities will appear in it. I know of a tract of ground fifty by thirty-two which has upon it a garage, one bearing tree each of the following named fruits: pear, cherry, plum, two young apple trees not yet fruiting, one currant bush, one gooseberry and two grapes, all bearing. Enough asparagus and pie-plant for the use of the family are grown. Four rose bushes, several paeonies, and lilies with a few other hardy flowers, complete the permanent plantings. Radishes and lettuce; tomatoes sufficient for the family requirements from the latter part of June until long after frost, besides the usual supply for canning; all the beets and carrots for early summer use and up to near the present time; sufficient parsnips for the year were all grown upon this plot of ground, and in addition, celery which has been used since the first blanching to date, with enough on hand for another month at least. This celery is of better quality than our market affords at this time. This plot of land was well planned at the time of its first planting.

Have a Definite Plan

This brings me to my next point. The novice should make an exact plat of his ground, drawing it to scale, and locate upon it the permanent plantings—trees, vines, shrubs, small fruits, placing things of smaller growth where they will interfere as little as possible with the annual plantings. He can obtain a pear tree, and a plum tree, each of which will bear fruit of best quality, and will begin to bear the second year after planting. This pear is of upright growth, and the plum, tho a heavy bearer, is of small growth. A cherry tree in bearing—and it bears early—will give much satisfaction to the family. A single gooseberry bush will give several messes of sauce in summer, and provide a few cans for winter use. Grapes usually can be placed where they will not interfere with other plantings—against a porch, it may be. Roses, paeonies, lilies, and a few other hardy plants can often be placed in partial shade which would not be so well adapted to vegetables. The rose should not be given a place too near a large tree. Remember that this is a family garden, and some member of the family may find more pleasure in flowers than in the vegetables and fruits.

Small planting of strawberries, well cared for will be greatly appreciated. On the small plot named, I would not advise growing corn, potatoes, or garden peas in quantity. All that the average family will need of radishes, lettuce, beets, carrots, onions, tomatoes, salsify, parsnips, string beans, herbs and celery, can easily be grown upon this plot. It will be necessary for our gardener to exercise some restraint in making his plantings so as to avoid a surplus of anything. It is really discouraging to the grower to have a surplus of vegetables to go to waste. There is no satisfaction in giving vegetables to neighbors who do not appreciate fresh stuff enough to have a garden of their own. Our home gardener will not have surplus enough of anything, to justify him in hunting a market for it. A very small space will grow all of the lettuce and radishes that a large family will want. If beets and carrots are grown, one should not plant as many beets as he would if no carrots were grown, and so of other vegetables. In growing celery there need be no fear of a surplus, if it be well grown. Any neighbor would appreciate a bunch of celery, besides, ready customers for a surplus would be near at hand. If our gardener gets the "hang of it," he will grow better celery than he can buy, and he will also grow more of it than he would be likely to buy. The average family should be supplied from a patch 2 by 10 feet, setting the plants 6 inches apart in the row, and the rows 1 foot apart. This space should provide 60 good bunches of celery. I would advise the growing of the plants by the gardener himself, for he will then be able to transplant them when very small, and give them a second transplanting before setting in the permanent bed. The permanent bed for the celery will have been used early in the season for some early maturing growths.

How to Select Vegetables

In making a selection of varieties of vegetables to grow the inexperienced gardener would do well to consult some enthusiastic home gardener. He will also gain by procuring two or three catalogs from well known and reliable seedsmen, in order to study these for descriptions and cultural directions. He should order seeds sparingly, or money will be wasted. When making the selection our gardener will do well to keep the plan of his garden between him and the seed catalog. I would suggest the trying out of some vegetables each year new to the planter.

The preparation of the ground should receive much attention. Something can be grown on almost any kind of soil, indifferently prepared, but there will be little satisfaction in slow, unsightly growths, and consequent poor quality. One good radish is worth more than a bushel of tough, hot, stunted radishes. What is true of the radish is true of all vegetables. Make good preparation of the soil. What this means the inexperienced will have to learn—from observation, thru reading of a good garden magazine (which by the way will furnish a world of enthusiasm, and real pleasure), and the advice of friends who know something about gardening. My garden gets spaded in the fall to a depth of about 14 inches. It has an annual dressing with rotted manure, and occasionally gets a light coat of fresh manure in the fall.

You will have noted that I have not given specific directions for anything. It is hoped that the suggestions may lead some one to start the home garden. The inexperienced gardener would hardly profit by such directions as could be given in a brief paper. Acting on the suggestions made, if he will begin, he will learn by doing, and become enthused with the garden.

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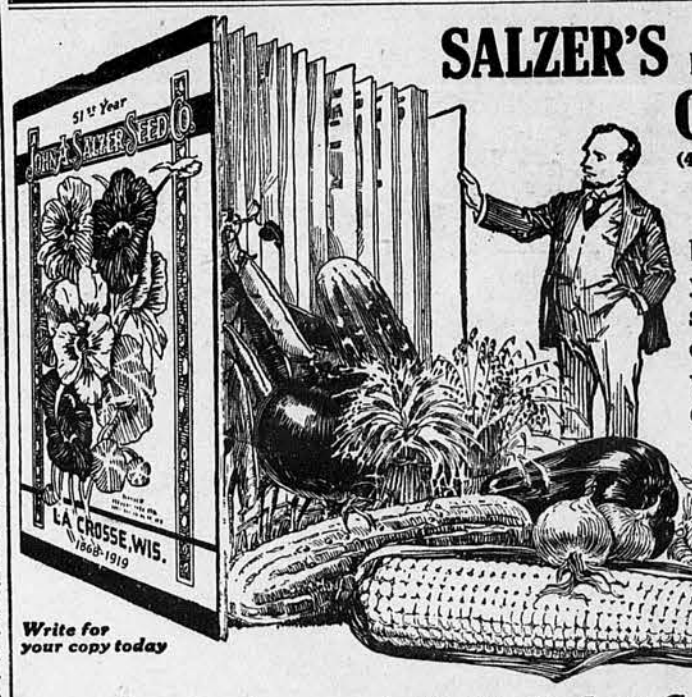
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Expectant Mothers Should be Free from Worry

BY MRS. MARGARET A. BARTLETT

SO YOU think," said Beth, after her sister's advice on the necessity of having all preparations for the coming baby attended to weeks beforehand, "that if I live a moderate, temperate life, free from fear and worry, and have everything prepared in season, Mother Nature will attend to the rest?"

"Exactly—provided you give her a fair chance."

"Meaning—?" queried Beth.

"Several things," Elinor replied. "First, consider your clothing. Avoid tight, binding garments. Wear one-piece articles as much as possible—union suits, combinations and one-piece dresses—so that the weight of the clothing falls from the shoulders. It isn't necessary to go corsetless. In



fact, Beth, since you have always been in the habit of wearing corsets, you will be more comfortable in them, only let them be low maternity ones made so as to support and not bind the abdomen.. And you must stop wearing those high-heeled shoes. Accustom yourself to low or medium-heeled ones and have rubber heels put on to absorb the shock of walking. Those small, high heels you have on not only invite a trip or a fall but strain far more than you realize, the muscles of your back and sides.

"Now, tho proper clothing will assist Nature greatly by allowing freedom to perform her work, there are several other ways you can help. You are an active young person, and I know you will always get some exercise in the open air. That, of course, strengthens the muscles, and also purifies the blood. But to keep poisons from accumulating in the body, keep your bowels open and regular—make your diet more laxative with fruits, vegetables and coarse breads, if you find it necessary, but never, never, take anything in the nature of a violent purge—and drink copiously of pure water to cleanse the system thoroly by way of the kidneys. A daily sponge bath, in water neither hot nor cold but pleasantly tepid, also helps to carry off the body eliminations.

"It is also wise—I thought it helped me a great deal when the boys were born and certainly it can do no harm—to anoint yourself freely thruout the abdomen the last few months with olive oil. Applied each night, it penetrates and assists the muscles in their final test. And the last month or so see that you do no excessive lifting or reaching.

"If you will do all the things I have mentioned, little sister, and in addition take a little added nourishment between meals such as a glass of milk or cocoa—instead of nibbling candy—you will be doing all that one can to assist Nature, and as rewards for your pains, you should have a fine lusty baby.

(This is the third article in the series on the expectant mother and her baby by Mrs. Bartlett. Watch for the remaining installments.)

Chicken is Easy to Can

BY MRS. DORA L. THOMPSON
Jefferson County

"Will you please tell again how you can chicken?" asks a reader in Alta Vista. "And do you caponize your roosters yourself and at what time of the year?" As there are probably a number of readers with flocks of chickens in which unwelcome cockerels may be found, I shall quote my answer to the reader's letter.

Cockerels of the broiler age, weighing about 2 pounds, may be canned without preliminary cooking. It is best to dress the chicken, cut it into pieces and put it to soak awhile in cold salt water. This helps to prevent a brown scum from forming on the top. Another way in which one may prevent this dirty looking scum is to parboil the chicken a few minutes and then plunge it into cold water and pack in jars. In either case, a teaspoon of salt to a quart of chicken should be added and some water. If you wish later to fry this chicken, do not fill the can with water. Put about 2 inches in the can and be sure it reaches the bottom of the can. If you prefer to use the chicken as stewed chicken, you may fill the can with water and heat the contents of the can later for broth and chicken. The young chicken should be sterilized in the can 3 hours in a hot water bath. A quart can should be sterilized 3½ hours.

An older cockerel that is to be used as boiled chicken should be boiled in a kettle until the bones may be removed. It is well to place the chicken cut into pieces in a cheesecloth or in a wire basket. The hot meat is more easily removed from the boiling water. Bones may be removed, seasoning added and the soup stock boiled down one-half or more, poured over the chicken in the can. The rubber and can lid should be placed in position, partly screwed, and the can sterilized 3½ hours in a hot water bath.

The best way to can a young, fat cockerel, a capon or a pullet is to roast the chicken before placing it in the can. Clean the giblets and boil slowly while the chicken is roasting. Place 2 or 3 slices of bacon on the bottom of the roasting pan and lay the chicken upon them. Cover the bottom of the pan with water in which salt has been dissolved. Bake for 1½ or 2 hours. Take the chicken and bacon

Do You Pass Along Your Ideas?

It is hoped that the household department of the Farmers Mail and Breeze may be of more service in 1919 to its readers than ever before. Every woman may help make this possible by contributing items of useful information or experience letters relating to any phase of the home or community life, at any time. Any subject in which women are interested may be discussed in this department. A prize of $1 will be awarded each month for each of the three best letters received and every woman having a letter printed will receive a valuable premium.

Letters on the following subjects will be especially welcome in January. What system of housekeeping accounts do you use? What use do you make of your old magazines? What pattern do you like best for home-made rugs? What are your home remedies for chilblains and frostbites? What lighting system do you think is best for a farm home? Give three of your favorite dishes made without eggs. Address all letters to Stella G. Nash, Editor, Women's pages, Farmers Mail and Breeze, Topeka, Kan.

from the pan and make a sauce as follows: Add as much butter as there is fat in the pan and stir in flour to nearly thicken. Add the water in which the giblets were cooked and stir until smooth and until the flour is cooked. If the flour is browned in a dry skillet, the gravy will be a rich brown. Caramel may be used instead to give a brown color. Remove the bones from the chicken, place in a can and fill the can with the sauce. Sterilize quart cans 3½ hours in hot water bath.

There are expert caponizers in some localities who do the work for a small sum. We have none here so I do the work myself. I would gladly hire an expert as I am rather slow at it. There is no one time of year any better than another. The time when the work should be done depends upon the age and size of the rooster. Broiler age is best. In performing this operation, the ribs must be spread apart. The ribs of an older chicken will not bend easily. Complete directions are sent with each set of tools. A better way to learn how to caponize is to watch someone at work. A number of women in this neighborhood had Professor Sherwood of the Kansas State Agricultural college show them how to kill and dress a chicken and how to caponize a rooster.

We have 14 capons that made their growth in the wheat field and are now fattening with the hogs in the feed yard. One that was caught today weighed 10 pounds. The handiest caponizing tools are those patented by a Kansan. All sets are expensive and may well be bought by a group of neighbors.

We have received an account book that contains pages in which to record receipts from poultry, butter, milk and cream. The costs of maintenence are not taken into account, evidently, as they should be if an accurate account is to be kept.

Ask Us Any Question

This column is conducted for the purpose of helping farm women. If you have a perplexing question of any kind, send it to us and the reply will be printed without charge. Address all inquiries to Stella G. Nash, Editor, Women's Pages, Farmers Mail and Breeze, Topeka, Kan

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In answer to the inquiry of "A Reader" in the December 21 issue, I should like to give my method of preparing the various meats for canning. I saw the bones across and then cut them up in pieces, two ribs to a piece, scatter over a little salt, and leave until the next day. I then wash off the salt, put the meat into a kettle, cover well with lukewarm water, bring slowly to a boil and skim off the first froth. Keep boiling gently until the bones will slip out easily without breaking up the meat. Season the broth to taste with salt and pepper, put the meat back and bring again to the boiling point. Have the jars and lids very hot, fill the jars up to the neck with meat, fill with the broth, then put lids and rubbers in place and set aside out of drafts to cool. When cold put in the cellar, being careful not to shake up the liquid. I also can the remaining broth and use it to boil dumplings or noodles.

I can rabbit and chicken by this same method and never have lost a jar. I canned beef last year by frying the pieces brown on all sides before boiling. It made good brown gravy and the meat was excellent. I believe my canning is successful because I keep everything on the stove and have the jars and lids as hot as possible.—A Friend, Aurora, Kan.

When canning beef or shoulders of hogs we cut the meat from the bones into pieces small enough to pack easily and pepper the meat before canning.

We sterilize and test the jars to be sure they seal perfectly. Put in the meat and salt near the middle of the can, using 1 large teaspoon to a quart. We screw on the tops as tightly as possible with the thumb and little finger and process 3 hours in boiling water, 2 hours with 5 pounds of pressure and 1 hour under 10 pounds pressure. The lower pressure is better, as the high makes the meat drier. It is not necessary to add any water to the meat as enough juice cooks out of it. The processed can need not be full of liquid as the air in it is sterilized. We allow a little longer time for processing when the bones are included; also, for ½ gallon jars.

In making headcheese we omit the livers and use two or three large chickens instead. We boil down the liquid in which the heads and chickens are cooked and add enough to the ground meat when mixing it to make the mixture quite soft. This liquid turns to gelatine after standing and adds much to the value as well as the flavor of the cheese. This cheese can scarcely be detected from pressed chicken. This can be precessed and used for sandwiches at any time.

Mrs. H. O. Molzen.

Harvey Co., Kansas.

Have You a Country Club?

Our country club met on December 11 with Mrs. Effie Harshman as hostess and Mrs. C. A. Gough as moderator. The men folks were invited to attend and it was quite a merry gathering. There was a Christmas program in the afternoon and presents were exchanged, each member having drawn a name at the previous meeting.

Roll call was answered by Christmas quotations. The dinner was bounteous and everyone enjoyed it. Books for the winter reading were distributed. Each member had selected a book at the previous meeting and they were bought and paid for from the club funds. They will be exchanged and read by all the members after which each member will keep the book she selected.

The bond of friendship is strengthened by these club meetings and everyone is brought into closer fellowship. The families of all the members will meet for a good old-fashioned candy or taffy pull as soon as the influenza epidemic is over. Games, music and singing will help to make the evening pleasant. I hope some of the country women in other vicinities will organize a club and see how much good comes of it. Mrs. B. B. King.

Neosho Co., Kansas.

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9128—Ladies' and misses' dress. The dress has a two-piece skirt which



has short peplums at the sides and is gathered at the slightly raised waistline. Sizes 16, 18 years, and 36, 38, 40, and 42 inches bust measure.

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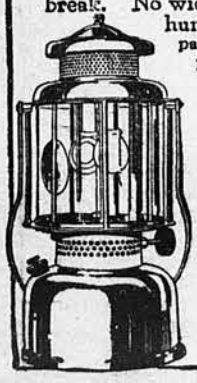


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For Our Young Readers

On the Trail of the Fur Bearers This Winter

BY DELBERT CLIFTON RAY

RUNNING a trap line during the winter months is one of the best methods by which a farm boy can earn money at this time of the year. I always blaze out a trap line in a wooded territory by cutting the bark from bushes or trees, every hundred yards or so, so that when the snow falls making the landscape look much the same everywhere I can follow the line by those marks. My line extends in a circle for a distance of about 6 miles, starting directly east from my home and coming in west.

My trap pack consists of 12 No. 1 and No. 1½ steel traps, 12 sets of figure 4 triggers for dead fall sets and a rabbit carcass for bait. These and a camp ax I carry in a stout sock slung over my shoulder. I set the steel traps in rock dens, fastening the chain to a clog or drag. Any kind of a piece of wood, that is heavy enough to keep the game from getting away, will do. Never fasten trap chain to a stake as this gives the animal a chance to pull its foot out of the trap. I do not bait a den set. I place the trap in the mouth of the den.

Wherever I find a mink, fox or skunk trail, I hunt a flat, square rock, heavy enough to crush the head of the animal I try to set for, and I place the figure 4 triggers under this rock to sustain its weight. The figure 4 consists of an upright piece of hard wood, 4 inches by ½ inch, sharpened at the top. The lever is made 1 inch shorter and a notch is cut into it about 2 inches from the end. This notch fits over the top of the upright trigger and the rock rests upon this trigger. A spindle with 2 notches to hold the lever from kicking upward, points under the rock and the bait is placed on the end pointing under. The animal reaches under the dead fall and catches the bait with its teeth and when it jerks, the spindle lets loose, the lever flies up and the rock, or dead fall, crashes down on the animal's head, killing it instantly. I bait a dead fall for skunk with rabbit; for mink and raccoon I use birds and for opossum I use any kind of meat. I also use snares for opossum, skunk and rabbits.

The most important part about making a success of trapping is not to get in a hurry and set traps and snares carelessly. Even if your catch is very discouraging, keep right on. During January last year we had a very cold spell. A deep snow covered the ground and the temperature went down to 10 degrees below zero. For two weeks I went the rounds of my traps each day and caught only one skunk and two opossums. Then there came a thaw and in one week I caught 23 skunks, five opossums, three red foxes and two minks. It requires patience to succeed in this trapping business.

Backward, Turn Backward

Backward—turn backward—oh, time, in your flight;
Make me an egg again—clean, smooth and white.
I'm lonesome—I'm homesick and life's but a dream,
I'm a chicken that was born in a hatching machine.
Forsaken—neglected—I wander alone;
No one to love me—no place to call home.
No one to teach me to scratch or to cluck,
I hardly know whether I'm chicken or duck!
—Selected.

Amusement for Winter Days

When you can't go outdoors, girls, try this. Get a large paper box about 22 by 29 inches. Cut out openings for windows. Then from a box which is somewhat larger make a roof. In the attic, place windows. Then on the roof of the house, place a flag pole, bearing a flag.

Place partitions for living room, dining room, kitchen and two bed rooms. Now you will wish to go shopping. For this purpose, use an old catalog from a mail order house. Cut out dishes, cupboard, tables, carpet, curtains, dressers, chairs, beds, tablecloths, a piano, cook stove, two heating stoves, some oil cloth for the kitchen floor and whatever else you may need for furnishings.

Fashion a square chimney of red and white squares. Make a broad front porch. Place a doll hammock on one side of the porch and on the other side a doll swing.

For door knobs, use white beads, placing one on each side of the doors.

A. Eathel Moulton.
Colorado Springs, Colo.

Students Can Guess These

If you can guess the four books of the Bible represented in this puzzle, you haven't forgotten what you learned at Sunday school. Send your answer to the Puzzle Editor, Farmers Mail and Breeze, Topeka, Kan. There will be packages of postcards awarded the first five boys and girls sending correct



answers. Give your name, age, county and complete address.

Solution December 21 puzzle—A kind of wearing apparel: Apron. The prize winners: Olive Tanner, Winfield, Kan.; Florence Weisgerber, Salina, Kan.; Oscar Baker, Perry, Kan.; Mary Opdycke, Russell, Kan.; Elizabeth Snook, Augusta, Kan.

Feed the Birds

During cold weather, the birds that did not migrate to the South in the autumn are likely to suffer for want of food, unless the children share their breakfasts with them. Do not forget to throw crumbs and seeds somewhere every morning for your little brothers of the air.

On the Trail of the Five Cent Egg

After a long siege of influenza in the family I found on returning to my hen interests, each bird standing around on one leg, empty nests, a tumbledown roost or two, general confusion and not one egg. Eggs were 60 cents a dozen and I just had to have some so I went to work.

Turning my attention to the building first, I stopped up all the cracks, gave it a good cleaning and a sulfur fumigation. I removed the old litter from the scratching shed and filled it 2 feet deep with bright wheat straw. I cleaned and sprayed all the nests and filled them with straw and ended the first day's work by scattering the morning feed ration in the straw and mixing it well thru with the pitchfork, using 3 pints of mixed wheat and oats for each dozen hens.

After that I gave the hens plenty of warm water as soon after daylight every morning as possible. I continued to hide the food in the same way and at night fed parched corn still warm, or corn made into lye hominy or hot bran mash. Occasionally I cooked a big kettle of oats which the hens seemed to enjoy. I hung up some cabbage heads, gave them some frozen onions, prepared a generous dust bath and gave them oyster shells. I carried warm water to the hens three times a day, cooked the potato peelings for them and gave them rabbit meat.

Within three days my hens began to sing and I got my first egg on the fifth day. After that there was an increase every day until today, December 14, the sixteenth day after I began to take proper care of them, they have laid 43 eggs. As there are just 50 hens, I consider this good. Pearl Chenoweth.

Decatur Co., Kansas.

Money Made in Dairying

Cows in Winter Must Have Pure Warm Water

BY K. J. T. EKBLAW

IMPURE water on the dairy farm is always a possible source of disease, since epidemics of typhoid fever, cholera and dysentery may be caused by contaminated water. On account of this possible danger, the farm water supply should be carefully examined. If possible, bacteriological and sanitary chemical analyses of each supply should be made at regular intervals. These together with careful sanitary surveys will, according to the Michigan board of health, enable health officers to know definitely whether insanitary or dangerous conditions exist in the water supplies used in dairies.

If the water supply is from a well, it is necessary to know also whether it is shallow or deep, dug, driven or bored; the depth; the strata thru which the well passes; and the kind and condition of curbing. If a cistern is used, the inspector should note whether it is above or below ground; the lining; and whether a cut-off or a filter is installed. The important thing to know about a spring is its danger from surface contamination. Surface water is always under suspicion, and a shallow well near any contaminating influence is likely to be contaminated. In making a survey of a well or spring it is always advisable to inquire whether the water is turbid after a rain, since that is a sure indication of surface contamination. Illness in the family using the supply should also be inquired into. On the dairy farms, the possible sources of contamination are privies, cesspools, barnyards, leaky manure pits, hogpens and dwelling houses.

Much depends upon the kind of soil as to the danger of contamination. A sandy soil, unless impregnated with waste material, will filter out ordinary pollution within a few feet. Under these conditions it is probable that 10 feet of finely porous soil will render the ordinary surface water safe, altho contaminating influences should be at least one hundred feet from the water supply. On the other hand, a well in a region in which the subsoil consists of limestone rock, with its cavities and fissures, may receive contamination from a considerable distance.

A survey showing unsatisfactory conditions lays the supply open to suspicion. These conditions must be remedied as soon as possible, and in the meantime frequent tests of the water must be made.

A well should be located on ground with the land sloping away from it for drainage. Contaminating influences must be removed. The top of the well must be fixed so that surface washings cannot get into it. For a dug well, this means a tight curbing, preferably of concrete. The upper four feet of the well should be entirely surrounded by a wall of concrete to keep out surface washings, insects and small animals. The curb should extend above the ground, with the surface sloping away. Pigpens should be removed to a safe distance; barnyards should be kept thoroly clean; and unless there are proper sewerage connections, some form of sanitary privy should be installed. Another safeguard is the proper lining of the well, consisting of tile, cemented brick or iron pipe casings.

Driven or bored wells are usually safe if deep enough, provided, of course, there are no leaks in the pipe to let in surface drainage. Such wells, however, should also be concreted around the top.

Flowing artesian wells, except in alluvial sections where vegetable organic contamination might exist, may be considered pure. Springs should be carefully protected from surface contamination by means of concrete walls and ditching to keep out washings from above; and the slope above the spring should be free from sources of pollution.

Cisterns should always be provided with cut-offs to keep out the first washings from the roof, as these are usually heavily contaminated. Underground cisterns, as with wells, must have tight curbing all around the top.

Under all conditions of water supply, the surroundings should be kept clean and the sources of supply protected from surface washings.

Use of Tank Heaters

Every 100 pounds of milk contains 87 pounds of water. The cow requires in addition, large quantities of water for carrying on her body functions. This water cannot be of any use to the cow until it is warmed. If it is swallowed ice cold it must be warmed inside of the body. This gives the body a severe chill and requires a great deal of energy from the food to return it to the proper temperature. What are the results? First, the cow does not drink as much as she should and the milk production is limited. Second, a part of the food which should go to make milk is used to warm the cold water taken into the body and to overcome the decided chill imparted to the body. There are other more economical ways of warming water than by the use of expensive grain.

A group of cows drinking from an icy stream is a common winter sight in many parts of this country. In many cases these cows are driven half a mile or more for this privilege. In many cases the cows refuse, under such conditions, to drink as much as they should and are driven back to the barn to wait until the following day when they will be offered the same thing over again. A cow cannot be a heavy producer of milk under these circumstances.

The best place to water dairy cows in cold weather is in the barn. When running water is available this can be accomplished by installing individual drinking cups or by watering them in a gutter-like manger. In this case the water will not need to be warmed as the water in pipes is not too cold. Individual cups have another advantage by allowing the cows to take small quantities at frequent intervals.

On many farms these conveniences are impossible. In such cases it is always possible to use a tank heater. There are several different kinds of tank heaters on the market which may be purchased at a moderate price. Most of them are satisfactory.

Another possibility for a tank heater is to use a small water-tight iron stove so constructed that it is entirely immersed in the water. It extends thru the wall of the tank and is fed from the outside of the tank. The funnel which must be of heavy iron extends at least twelve inches above the top of the tank. Draft is obtained thru the front that extends thru the tank wall. Coal gas or wood may be burned. Don't compel dairy cows to drink ice water. They cannot be high producers if you do.

Weights of Milk and Cream

Investigations by the U. S. Department of Agriculture show that the weights of milk and cream containing various amounts of fat are approximately as follows, at a temperature of 68 degrees:

Skimmed milk of a fat content of .025 per cent weighs 8.63 pounds a gallon, while milk which tests 3 per cent butter fat weighs 8.6 pounds a gallon. Milk which tests 3.5 per cent weighs 8.59 pounds a gallon; while 4 per cent milk weighs 8.58 pounds; 5 per cent milk weighs 8.58 pounds; and 6 per cent milk weighs 8.57 pounds a gallon. Mixed milk and cream of a 10 per cent fat content weighs 8.53 pounds, while a similar mixture of 15 per cent fat content weighs 8.47 pounds a gallon. Twenty per cent cream weighs 8.43 pounds, 25 per cent cream weighs 8.39 pounds, 30 per cent cream weighs 8.35 pounds, 35 per cent cream weighs 8.31 pounds and 40 per cent cream 8.28 pounds to the gallon. For all practical purposes the weight of milk testing from 3 to 5 per cent butter fat may be figured at 8.6 pounds a gallon.

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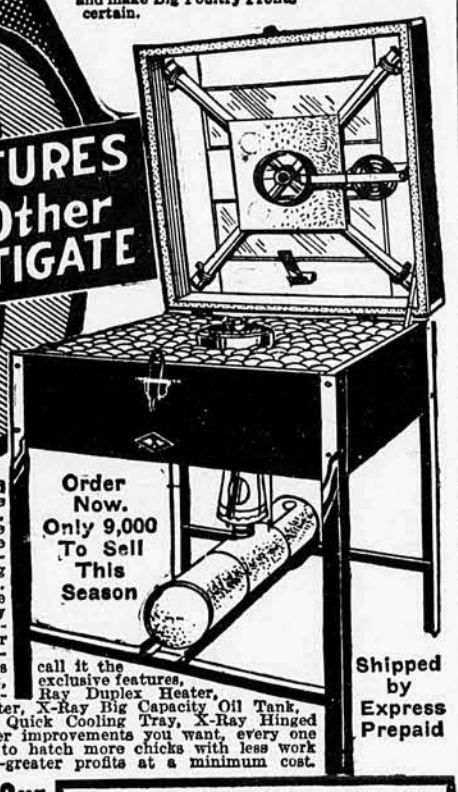
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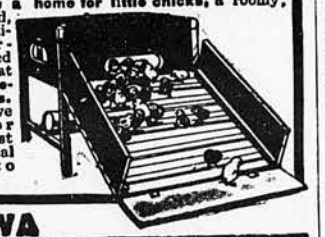
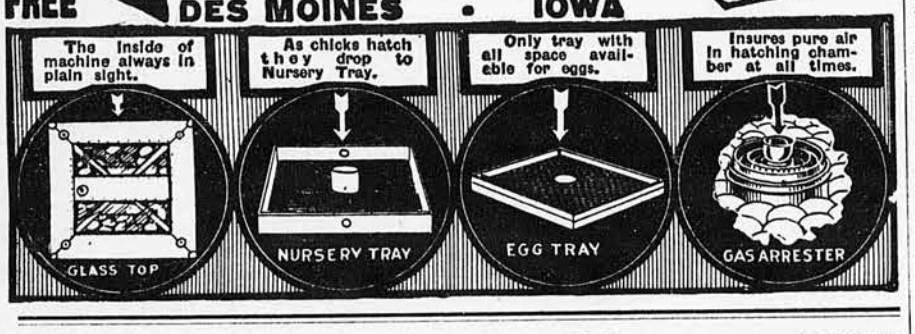
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Lights for the Farm Home

Many Kansas Farmers Have All Modern Conveniences

BY JOHN W. WILKINSON
Associate Editor

BETTER lighting for the farm home has long been the dream of many Kansas farmers. This year they are enjoying an unusual degree of prosperity. Crop conditions have been fairly good, farm products have brought high prices, the banks are full of money, and farm folks are putting in many improvements. Many farmers in Central Kansas who are within reach of the large city lighting stations are having transmission lines run to their houses for power and light. The transmission lines that carry the power and light to farms are growing in numbers each month. Already over 1,750 miles of such lines have been built and indications are that with the coming of peace the mileage will be doubled during 1919.

Many farmers around Abilene have had their homes connected with the electric power station in the city and now have their homes lighted with electricity. The lines running out of Abilene serve more than 200 farms while from Gypsum City, St. George and the Rocky Ford plant, all connected with the Abilene plant, are connected 150 other farms. These lines reach into 10 counties and are the most extensive in the state for farm use. From Garden City are lines that provide power to many sugar beet farms and at Concordia, Downs and Phillipsburg are also plants that serve many small towns and give service to farms.

The demand for the new service is indicated by the long waiting list of farmers who desire its use. The cost of installation has risen with the increased cost of material and labor but the farmers say it is worth it. It requires at least three farms to the mile to make the installation profitable, but on just one road north of Abilene every farm for 10 miles has service.

Service Is Cheap

The expense of the average farm is much less than the town house lighting bill, few of them exceeding $4 a month except with extra heavy work when it takes the place of the engine. So rapidly has the extension of lines to the farms gone on that the companies have had the greatest difficulty in getting labor and material for the demands. The farms get a 24-hour service and this makes the power available for every sort of farm work formerly done by gasoline engine or tractor engine. Indications are that as rapidly as the lines can be built the country will be threaded in the vicinity of Abilene with transmission lines and electric current will be as common as the rural telephone.

Besides this the small towns never able before to have electric current are being served by these extended lines. Of 169 towns served from central plants in the state 108 never before had such service. Forty-two towns are provided with current from Abilene alone; 24 from Concordia, eight from Phillipsburg and lesser numbers from other centers. It has given them white ways, paved streets and other improvements and has been a valuable incentive to a better community life.

Small Plants for Farms

All along the Kaw Valley are many electric power stations that are supplying power to farms at a very reasonable cost. The time is not far distant when all of the mighty power of the Kaw River will be harnessed and converted into electrical energy. However, many Kansas farmers who are not so fortunate as to be within reach of these central power stations are putting in small lighting plants of their own. The electric lighting plant on the farm is just emerging from the stage of luxury to that of the practical, and in a few years farms not equipped with some kind of modern lighting plant will be rare, indeed.

There would be many more farms equipped with electrical lighting plants today if it were not for the fact that many on the farm are thinking of electricity only in terms of light, and have failed to keep in mind many of the other uses to which it can be put. The manufacturers are, perhaps, as much responsible for this error as anyone, because they have emphasized only the lighting feature.

It is well to remember that these plants deliver both light and power. Any farmer is sure to be interested when he is shown how he can run the milking machine by turning a switch; how the fanning mill can be operated by electricity; how the grindstone may be turned without a human arm on the crank; how the pump will work all day simply connecting with the current and how, in addition to all this labor saving he may have his barn by night as bright as noonday; how his wife may run the separator by pressing the magic button, or may watch the churn revolve, or may use an electric iron on his Sunday shirt, or how the family may gather around the library table in the evening and read by a tungsten lamp, or rest in the breeze of an electric fan.

Leaving the matter of comfort and convenience out of consideration for the moment, let us look at the electric plant for the farm from the labor saving standpoint. In the operation of the lighting system alone this saving is figured at 180 hours a year, thru lessening of labor which is reduced to the occasional turning of a switch. It is in the use of electric power, however, that the most striking examples of time and labor saving are found. The electric motor takes the place of the human arm in turning the crank, the wheel or the handle.

Big Help in Dairying

Take the churn, cream separator, washing machine. With an electric motor there will be a saving, on the average, of from 2½ to 3½ hours a week from each of these machines. Electricity from the farmer's own plant to run these machines will cost no more than 2 cents an hour. They can all be run by the same small portable motor and nine more hours a week, let us say, can be saved for necessary hand labor. Nine hours a week are 468 hours more a year to be devoted to productive work.

If the farm dairy herd is milked with a milking machine, that too can be run with electricity, with a minimum of care and attention and with a saving of an hour or more for the milking. So let's add to the yearly annual saving at least 365 hours on account of the milking machine.

Then there are machines used occasionally, like the grindstone, the fanning mill, horse clippers or sheep shears, sausage grinder and other machines that the farmer will be able to operate, the saving from which would easily total another 100 hours a year.

For the average farm, there is a possible time and labor saving of two hours a day where a modern water system electrically operated is used. Two hours a day is another 730 hours a year to be added to our annual saving.

Cost of Outfit

There are other ways of saving about the farm home by means of the use of electricity, but the total of the items mentioned runs up to figures that seem almost incredible. If the labor and time saved were correctly estimated and valued a small plant would soon pay for itself. The installation of such a plant is an intensely practical thing and its cost can be kept within a reasonable limit. A very good outfit may be installed for $250. Larger plants may cost as high as $600. However, a well designed plant will supply electricity at a much lower cost than the city power station will charge and many farmers who are using their own power plants state that they are saving at least 25 hours' work every week in their farm operations. Their neighbors are observing these results and one by one in many farm communities they are enlisting this new farm force in their own work. Kansas farmers have the money now to invest in many improvements and home conveniences and if they do not have them it is because the subject has not been presented to them in the right way by the manufacturers of such utilities.

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

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We guarantee every Sure Hatch Incubator to be equal in quality of materials and skilled workmanship to our incubators sold before the war. No cheapening, no skimping with us.

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Think of it! You can now get this famous Iron Covered Incubator and California Redwood Brooder on 30 days trial, with a ten-year guarantee, freight paid east of the Rockies.

150 EGG INCUBATOR CHICK BROODER

Incubator is covered with galvanized iron, triple walls, copper tanks, nursery, egg tester. Set up ready to run. Brooder is roomy and well made. Order direct from this advertisement—money back if not satisfied or send for free catalog.



150 CHICK BROODER

IRONCLAD INCUBATOR CO. Box 67 RACINE, WIS.



Made of Redwood cov'd with Galv. Iron (8)

$10.95 Buys 140-Egg Champion BelleCityIncubator

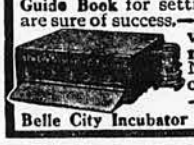


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With this Guaranteed Hatching Outfit and my Guide Book for setting up and operating you are sure of success.—My Special Offers provide ways to earn extra money. Save time—Order Now, or write for Free catalog, "Hatching Facts"—It tells all—Jim Rohan, Pres.



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An Extraordinary Offer: Germozone is a standard remedy everywhere for chicken troubles, roup, colds, cholera, swelled head, bowel complaint, chicken pox, canker, not doing well, non-laying, etc. Now our proposition: If no dealer there handling Germozone and you will agree to use it and pay if satisfied, we will send you a 75c package without a cent in advance. No pay if not satisfied. Can we do more? And we will send free 5 poultry booklets. Write today.

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64 BREEDS Most Profitable chickens, ducks, geese and turkeys. Choice, pure-bred, northern raised. Fowls, eggs, incubators at low prices. *America's greatest poultry farm.* 26th year. Valuable new 112 page book and catalog free. R. F. NEUBERT Co., Box 635 Mankato, Minn

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Novelty House, Dept. M. H., Topeka, Kansas

Purebred Fowls are the Best

Careful Selection Improves Any Variety

BY I. B. REED
Specialist in Poultry Husbandry

INDISCRIMINATE breeding from every bird reared will destroy the efficiency of a flock very quickly. Selective, sometimes termed scientific, breeding is necessary to maintain the good features of any agricultural product, whether it is livestock or some crop such as a grain. Improvement is possible only by eliminating undesirable specimens and breeding only from those birds which show the desired characteristics in most pronounced form. The more a product differs from its original, or natural form, the greater the necessity for this selective breeding. Few products with which we deal vary so much from their natural, original form as does the chicken, so that selective breeding is imperative if we wish to maintain an efficient flock of poultry.

Shape Makes the Breed

Among poultry fanciers there is an adage which goes like this: "Shape makes the breed; color makes the variety." This is to emphasize the fact that in breeding for exhibition points the breed character is the most important, and for that reason shape is the important consideration. However, for the average poultry breeder this adage is incomplete, and, to bring it absolutely up to date it should run: "Shape makes the breed; color makes the variety; but, vitality makes the chicken." Therefore, the first requisite in selection of breeding stock, for any purpose whatsoever, should be vigor or vitality, for without great constitutional strength one cannot expect to produce healthy chickens. Shape and color characteristics, although of much importance in producing purebred poultry, must always be held secondary to the factor of vitality.

The following classification shows the points of high vitality as opposed to the points of low vitality. Not all of these points of low vitality will be found on any one bird. The presence of a single one of the low vitality points should disqualify the bird as a breeder. All of the high vitality points must be present to consider the bird suited to any breeding pen.

It is not possible to tell just which are the best birds until just shortly before time to make the final selection. It is possible, however, to pick out many undesirable birds thruout the entire developing period of the bird. The elimination, or careful marking, of all undesirable birds should never be neglected. Adopt some definite method of marking chickens of weak vitality, or with undesirable characters unsuiting them for the breeding pen. This can be done by using leg bands, by toe-punching, by cutting off a middle toe, by marking the chicken with colored dye or paint, or by any other satisfactory means.

Chicks should be watched from time of hatching to time of maturity, and this identifying mark placed on any bird which is "crow headed"; shows a protruding or sagging abdomen; does not feather out well; does not "grow off" as rapidly as it should; suffers from any sickness; or shows any other abnormal character. All of these symptoms point to lack of constitutional vigor. A bird apparently may overcome some of these weaknesses, at times, and afterwards look entirely normal. The fact remains, however, that the bird still has the weakness and is unsuited for breeding purposes. If this practice is followed rigidly, the unmarked birds, at maturity, will consist of the strongest birds reared.

Make the breeding flock consist of the best male owned and to him should be mated the smallest number of hens which will provide the required number of eggs for hatching. If the male shows any weakness of shape or color, be sure to select hens which are particularly strong in those sections, for this is the way to maintain the desired uniformity of type.

Use only the best birds to breed from, and be that much nearer to success. If a separate house and yard is not available, then put a temporary wire partition in the main chicken house, and erect a small wire-enclosed yard outside. The birds need be confined for only a short period, so that a large space, or a special equipment is not necessary.

The idea which should be firmly fixed in the minds of every poultry raiser is mass breeding means rapid deterioration. To maintain the efficiency already produced, or to improve stock of any kind, selection is necessary.

SECTION.	FACTORS INDICATING HIGH VITALITY.	FACTORS INDICATING LOW VITALITY.
Head	Short, Broad	Long, Thin
Eye	Bright, Prominent	Dull, Sunken
Comb	Firm, Bright red	Weak, Pale or Purple
Beak	Short, Stout, Straight..[apart	Thin, Crooked [legged.
Legs	Large bone, Straight, Well	Small bone, Knock-kneed, Bow-Crooked
Toes	Straight	
Breast	Full, Deep	Pinched, Shallow
Back	Wide, Straight	Narrow, Crooked
Feathers	Glossy, Close fitting	Dull, Loose, Imperfectly formed
Actions	Active, Nervous, Full of Life..	Sluggish

Shipping Poultry by Mail

Don't plan now on a mail order business in eggs and poultry next summer.

That it is not feasible in Kansas to ship eggs and dressed poultry by parcel post in summer has been proved by a study made by the bacteriology department of the Kansas State Agricultural college.

A number of fowls were dressed by different methods and sent to a town about 50 miles away. From there they were returned to the bacteriology department for examination, and in every case it was found that the meat was not in good condition for eating.

Attempts to use preservatives, such as cane sugar, sodium nitrate, and sodium chloride, have not been successful because of the foreign flavor added by these substances.



Kansas Still is one of the "King Bee" Turkey States. These Fowls Were Fattened for Buyers on the Kansas City Market.

160 Hens 1500 Eggs

Mrs. H. M. Patton, of Waverly, Mo., writes: "I have fed 2 boxes of 'More Eggs' to my hens and I think they have broken the egg record. I have 160 White Leghorns and in exactly 21 days I got 125 dozen eggs." You can do as well. In fact, any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents' worth of "More Eggs," and you will be amazed and delighted with results. "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 9661 Reefer Bldg., Kansas City, Mo., for a $1 package of "More Eggs" Tonic. Or send $2.25 today and get three regular $1 packages on special discount for a season's supply. A million dollar bank guarantees if you are not absolutely satisfied, your money will be returned on request and the "More Eggs" cost you nothing. Send $2.25 today or ask Mr. Reefer to send you **free** his poultry book that tells the experience of a man who has made a fortune out of poultry.

$200 Worth of Eggs From 44 Hens Writes a Kansas Man

I never used "More Eggs" Tonic until last December; then just used one $1.00 package and have sold over $200.00 worth of eggs from forty-four hens. "More Eggs" Tonic did it. A. G. THODE.
Sterling, Kan., R. No. 2, Box 47.

Poultry Raisers Write from All Parts of the U. S.

Wonderful Results of More Eggs

1200 Eggs from 29 Hens
The "More Eggs" Tonic did wonders for me. I had 29 hens when I got the tonic and was getting five or six eggs a day. April 1st I had over 1200 eggs. I never saw the equal. EDW. MEKKER, Pontiac, Mich.

8988 Eggs from 125 Hens
Since using "More Eggs" I have got more eggs than any time I have been in the poultry business, about thirty years. Since the 15th of March to November 16th I have marketed 749 dozen and only have one hundred and twenty-five hens. I highly recommend "More Eggs" Tonic to all poultry raisers.
MRS. W. S. DEAHL, Exline, Iowa.

1368 Eggs After 1 Package
Last fall I bought a box of your "More Eggs" Tonic and would like to have you know the result. From January 1st to July 1st my hens laid 1368 eggs.
A. E. WHITE, Scranton, Pa.

"More Eggs" Paid the Pastor
I can't express in words how much I have been benefited by "More Eggs." I've paid my debts, clothed the children in new dresses, and that is not all—I paid my pastor his dues. I sold 42½ dozen eggs last week, set 4 dozen, ate some, and had 1½ dozen left.
MRS. LENA McBROON, Woodbury, Tenn.

Increase from 2 to 45 Eggs a Day
Reefer's Hatchery:
Since I began the use of your "More Eggs" Tonic, 2 weeks ago. I am getting 45 eggs a day, and before I was only getting 2 or 3 a day. Yours truly,
DORA PHILLIPS, Derby, Iowa.

15 Hens—310 Eggs
I used "More Eggs" Tonic and in the month of January from 15 hens I got 310 eggs.
MRS. C. R. STOUGHTON, Turners Falls, Mass.

From No Eggs to 37 Eggs a Day
That "More Eggs" Tonic I got awhile back is just simply grand; the best thing I have ever used. When I started using it they did not lay at all; now I get 37 eggs a day. EDGAR A. J. LINNIGER, Elwood, Ind.

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I am very much pleased with your "More Eggs" Tonic. My hens have more than doubled up in their eggs. L. D. NICHOLS, Mendon, Ill.

126 Eggs in 5 Days
I wouldn't try to raise chickens without "More Eggs," which means more money. I use it right along. I have 33 hens and in 5 days have gotten 10½ dozen eggs, or 126. MRS. J. O. OAKES, Salina, Okla.

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The "More Eggs" I ordered from you last winter proved out very satisfactory. Fully 75 per cent of my hens laid every day. H.C. RADER, Greenville, Tenn.

Increase from 8 to 36 Eggs
E. J. Reefer:
I am well pleased with your "More Eggs" Tonic. I was only getting 8 or 9 eggs a day, now I am getting 3 dozen a day. Yours truly,
WM. SCHMIDT, Shady Bend, Kan.

Order Today!

Send a dollar today for a full-size package of "More Eggs" tonic. Or better yet, send $2.25 at special discount on three packages for a season's supply. Order now and start your hens making money for you. You run no risk. A Million-Dollar Bank will refund instantly if you are not entirely satisfied. [*Whether you order "More Eggs" now or not, mark on the coupon for Mr. Reefer to send you absolutely free his valuable poultry book that tells the experience of a man who has made a fortune out of poultry.*] Act NOW. Pin a dollar bill to the coupon. Or take advantage of the discount and send $2.25 for three full-size $1 packages. Send for this bank-guaranteed egg producer NOW. *Today!*

E. J. Reefer, Poultry Expert,
9661 Reefer Bldg., **Kansas City, Mo.**

Enclosed find { $1.00 for one full-size package of "More Eggs" Tonic ☐ ; $2.25 for three full-size $1.00 packages of "More Eggs" on special discount. ☐ }

(*Mark X in the square opposite order you want.*)

Send this with an absolute Bank Guarantee that you will refund my money if this tonic is not satisfactory to me in *every* way.

Name.....

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Poultry Book FREE If you don't want to try this Bank Guaranteed egg producer at least put an X here for me to send you my poultry book FREE. ☐

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You have the satisfaction of seeing your furrows flow over the Auger-Twist moldboard the *natural* way, like a shaving.

You know that you are plowing right, and that your fields will be known as the best plowed in the community.

The Janesville glides through the soil with a flexible movement. The plow bottoms have just enough floating motion at the cutting edge to take away the pinch at plow points. Reduces the pull on the team.



Budlong Disk Harrow



Budlong Tandem Disk

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Janesville Corn Planter



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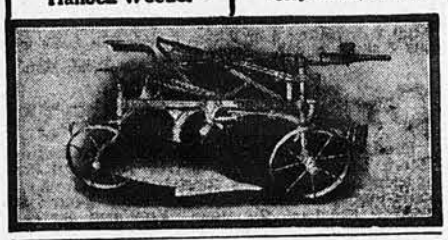
Hallock Weeder

It illustrates and describes entire line of Janesville walking and riding plows. It shows Janesville Two-Three-Bottom Tractor Plow with its extra heavy flexible frame, the plow that accommodates itself to any soil condition.

The Janesville line includes Disk and Lever Harrows, Cotton and Corn Planters, Listers, Shovel and Disk Cultivators, Hallock Weeders, Seeders. Mention tools you are interested in.

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Make Russian Thistle Hay

Cheaper Rough Feeds for Cattle and Sheep Needed

BY J. T. HUGHES

SEVERAL MEN ask us every year if Russian thistles are good feed and our answer is, most emphatically, yes. They ask us that question when they see so many of them stacked in our cowlots. According to Henry and Morrison in their book, "Feeds and Feeding," Russian thistle hay has a high feeding value. Our experience in feeding it substantiates their statement.

We have fed Russian thistle hay to cattle for six years now and never have experienced any bad results from it. Cattle do not have to learn to eat the hay and neither do they have to be starved to it. We have fed cattle other feed such as milo fodder and Sudan grass hay in a self-feeder and let them go to the thistle stacks afterward and eat. Besides, we keep purebred Hereford cattle exclusively and they are always in good flesh, so no one can say they have been starved to anything.

Increases Milk Production

Milk cows and cows with sucking calves will give more milk when part of their ration is thistle hay than when fed on good kafir, cane, or Sudan hay alone. Last spring our cattle finished eating what thistles we had before we turned them out on grass and we fed them Sudan hay and cane fodder and they fell off in their milk right away. Some of our neighbors who feed thistle hay have had the same experience when their thistles were all gone. When cattle have thistles to eat they seem to be more contented to stay in the lot than they do when fed fodder alone.

We always stack our thistles in our cowlots and let the cattle run to the stacks. That seems to be the most economical way to feed them as they waste but very little that way if the hay is stacked well. We prefer to have our stacks fairly wide and as long as possible. The cattle eat the chaff that falls down by the edge of the stack rather than eat holes in them or climb on top of them if the stacks settle good after they are put up. Of course when a stack falls over after the cattle have eaten on it for a long time, it should be scattered out so that the cattle can eat it or they will tramp around over it and waste it as they would any other feed. We feed our cattle what good fodder they will clean up at night and let them run to the thistles during the day and they always winter well in that way.

No Harm from Thorns

Nearly everyone asks us if the thorns do not hurt the mouths of the cattle. We have never had any do it yet nor have we ever heard of anyone else who feeds thistles having any trouble that way. It is what one would call the leaf that the thorn is on that is the best feed and that is what rubs off and falls down near the edge of the stack.

We do not know how cattle would winter on thistle hay alone as we never have tried that. The nearest we ever wintered cattle on thistles alone was in 1913 and then we fed a little ground broomcorn seed with them and the cattle came thru in good condition. Where one has a big bunch of grade cattle, thistle hay and cottonseed cake would be as cheap a winter feed as anything he could get and we cannot see why the cattle would not winter well on it.

I have talked with sheep men and they say that thistle hay makes good sheep feed. One sheep outfit said their principal winter feed is thistle hay, and one man that had a bunch of sheep here in the winter of 1912 said if he could have gathered up enough old dry thistles from around fences and in draws he would have lost very few sheep. As it was, he lost so many sheep that he went out of the business. In fact, tradition says the seed of the Russian thistle was brought to this country from Russia to grow feed for sheep.

Cattle eat thistles better in damp or rainy weather than they do fodder that is wet; in fact they like thistles better when they are wet than they do when they are dry.

We always leave a piece of land purposely for thistles. We disk the ground early in the spring before the thistles start to grow and then harrow it so it will not be too rough to cut with a mower. Then when we are ready to cut we mow and rake them just like any hay but we always try to haul them green. That is, we rake them as soon as they are cut and haul them in right away. They seem to make better hay that way than they do to let them dry in the field. Also the stacks settle better, shed rain better, and are easier to handle. Thistles should be cut after they bloom and as they begin to form the seed. If they are cut too green they will spoil in the stack and if they are left until they are too well-matured, they will not settle very well in the stack and rain will wet them clear thru. Of course the greener they are cut the better feed they make if they do not spoil.

I do not know how many tons they would make to the acre but they always yield a big crop here every year. One year we got 138 loads of hay from 30 acres but that was an extra heavy yield. They are our surest hay crop and always produce a good average of feed to the acre with other crops. If the ground is prepared before the thistles start there will always be a good stand of them, whether the ground was free from thistles the year before or not. Nature provides the seed and does the planting and all we have to do is to prepare the ground and harvest the crop. I would not advise anyone to get the seed and start them in a section of the country where they do not grow at present, as they are bad to scatter and his neighbors might object. However, they are scattered pretty well over the Western part of Kansas, the Texas Panhandle, Eastern New Mexico, and Colorado, so I do not see any harm in using them as a hay crop since they are here anyway.

Many Farmers Use Thistle Hay

We are not the only ones out here that put up thistle hay, as several of our neighbors put them up every year. I took a trip up into Southeastern Colorado this summer and saw stacks of them scattered here and there as far as the foothills of the mountains. Some of the farmers up in Colorado were putting them up for the first time while others had tried them before and were putting them up again.

This year we left about 16 acres for thistles and got about 25 tons of hay from it. All the expense there was to it, including rent for the land and the labor required to put them up, was $80 and we figure they are worth $200 as feed. We hauled them with header barges this year and pulled them off with ropes and horses as we unload milo. We pulled off the first two loads that way and then topped out with another load. We unloaded them from one side of the stack the first time then drove on the other side the next time and pulled them off the other way. I think a buck rake and stacker would be cheaper than the way we hauled them this year, also a better way as the stacks could be built wider and higher.

We like Russian thistle hay fine and expect to put some up every year while we keep our cattle, and we let them have all they want. As I said before we keep purebred Hereford cattle exclusively and if we thought thistle hay would hurt them, we would not let them eat any of it. We have a bull that we paid $1,000 for, as a calf, and we turned him in the lot with the rest of the cattle last winter where the thistles were and let him eat all he wanted of them. He is welcome to eat all he wants and seems to relish them as well as the rest of our cattle do.

Armenian-Syrian Relief Campaign

BY CHARLES DILLON

In every church in America, Sunday, January 12, the preachers will tell the congregations and the children in Sunday schools why this nation is trying to get 30 million dollars by January 18 for the relief of starving Armenians, Syrians and other refugee races in the Near East. Not very long ago none of us knew what Near East meant. But the Great War has taught us a lot of geography, many a strange name, some—like Mesopotamia—familiar to us in our school days, but long since forgotten. Well, away over there in the country we call the Near East, below the Caucasus mountains, a nation known always as descendants of the original Christians is starving to death. It was bad enough while the Great War was on. Then we had 925,000 of them to feed, and the money went regularly from America thru our own State Department. When Turkey surrendered more than 3 million Armenians were released and began to plead for food and clothing. It's an old story, and a sordid one, but the need is there, and it's winter, and little children are cold and hungry. Out West the farmers, more than any other persons are helping the Armenians. Money comes from them every day, and sympathetic letters; and this is the reason the commission in New York hopes agricultural America will respond generously in the campaign January 12 to 19 when the drive for 30 million dollars is on. If you haven't cash send in a Liberty Bond. Every cent of expense is paid from private sources in New York, so that every dollar and 100 cents of it is used in feeding the hungry. Your town and country is organized. Perhaps you are on the committee. If you aren't, don't let that fact deter you from helping to spread the gospel of giving this winter day.

Have you a community improvement club? If so tell us of how much benefit it has been to your community.

Farm Topics for Discussion

The Farmers Mail and Breeze desires to have all of its readers make free use of its columns at all times. Write us your experiences and opinions on any subject that you think would be of interst. We can use a number of letters containing from 50 to 100 words and will give cash prizes for the best ones. We especially desire letters on the topics mentioned below.

Farm Equipment—What has proved to be your most useful farm implement or piece of farm machinery, and for what purpose have you used it? What experience have you had with tractors or trucks and how do you like them?

Field Crops—What was your most profitable crop in 1918? Tell us how it was cultivated, and mention its yield and how it was marketed.

Soil Management—What use are you making of manure, straw and commercial fertilizers? What is your plan for stopping soil washing on the farm?

Handy Devices—Send us a description of some labor saving device you have used on your homestead. Just a rough pencil drawing will serve our purpose. Our artist will do the rest.

Dairying—How many and what breeds of dairy cows do you have? What kind of silo and barn have you built? What do you think of milking machines and cream separators? What dairy feeds gave you the best profits? How much milk, or cream and butter do you sell?

Livestock—Tell us how many hogs, cattle or sheep you have been feeding. Mention the prices you have had to pay for feeds. What prices did you receive for your hogs and cattle? Did you make or lose money? Why?

Directions—Write only on one side of your paper and address all letters to John W. Wilkinson, Associate Editor, the Farmers Mail and Breeze, Topeka, Kan.



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To explain the En-ar-co system of Scientific Refining, let us assume that you have caught and condensed escaping vapor from a teakettle spout. In doing this, you have secured pure water. But along the sides and at the bottom of the kettle, scale has formed —residue that is left over. By placing this pure water in a new kettle and reboiling it, you will find little, if any, scale in kettle number two.

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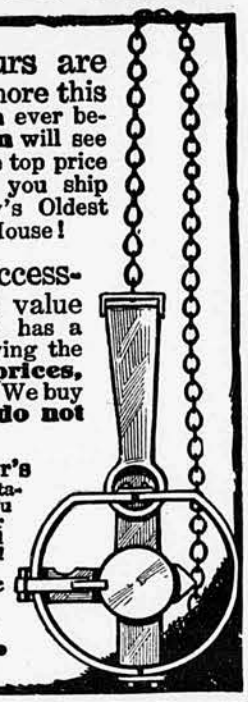
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Make the Most of Manure

Improved Soil Fertility Increases Crop Yields

BY JOHN W. WILKINSON
Associate Editor

MORE attention should be given by farmers to making the best use of the manure produced by the livestock on the farm. Barnyard manure always will be one of our most important and abundant materials for soil improvement. It is a product that on livestock farms soon accumulates in large amounts.

On many farms it is thrown out and exposed to the weather and a large part of its most valuable fertilizing material is lost thru the action of the sun, the wind, the rains and the snows. The unnecessary waste that occurs in this way in the United States each year far exceeds the value of all the commercial fertilizers used in this country.

Fertilizing Materials Wasted

Assistant Secretary Vrooman of the United States Department of Agriculture has stated that "our billion dollar manure waste is the world's greatest economic leak." The value of the manure produced in Kansas has been estimated at over 91½ million dollars. Thus if one-half of this value is permitted to go to waste it will mean about 45 million dollars lost in the Liberty wheat harvest by letting our farm manures waste in our barn lots.

"The best and cheapest way to handle manure," says H. J. Bower of the Kansas State Agricultural College, "is to draw the manure directly to the field. It is estimated that one-half the value of the manure on Kansas Farms is lost lying in the barn lots. The Liberty wheat crop, this winter, offers an opportunity and place to save this loss by top dressing the fresh manure, any time from November 1 to March 1.



Thru the Use of a Good Manure Spreader the Farmer Can Obtain Uniform and Even Distribution of the Manure, Besides Saving Himself Much Hard Labor.

"An exceedingly large acreage of wheat is now seeded in Eastern Kansas. The Liberty wheat harvest will show an extra acreage of wheat for this section. Undoubtedly as time permits and as most farms are equipped with manure spreaders in Eastern Kansas, the same patriotic spirit that seeded the large acreage of wheat will also move the manure from the barn lots to the wheat fields during the idle time of this winter."

Farmers have been very busy and short of help during the past season. Doubtless in many cases the manure pile is still in the barnyard. There was neither time nor help at hand to spread this manure at the usual time, and as a result the wheat may now be growing on land that is not as fertile as is desirable.

"In such cases," the U. S. Department of Agriculture says " it will be of great help to the wheat crop and of profit to the farmer if manure, or straw not needed for other purposes, is spread evenly and thinly on the more level wheat fields this winter. Such application should be made when the ground is dry or frozen. In case fertilizer has not been applied recently to the land and it is known that phosphorus is needed, 40 or 50 pounds of acid phosphate may well be added to each load of manure before spreading. The application of manure should not be heavy—probably not more than 6 tons to the acre in any case—and it should be spread evenly so as not to smother the plants."

The value of barnyard manure when applied as a light top dressing on wheat in winter has been conclusively shown in experiments made at the Kansas Experiment station where during the past seven years the manure has been applied at the rate of 2.5 tons to the acre every year. This increased the average yield of wheat 7.3 bushels an acre.

The effect of manure on the yield of alfalfa was more pronounced than on wheat. At the Kansas Experiment station for the past seven years the yield has been 3,324 pounds an acre on the unmanured ground, while land manured at the rate of 5 tons a year produced an average yield of 7,169 pounds, or gave an increase of approximately three-fourths of a ton an acre. Very heavy applications of manure should be made only when there is an abundance of it, and only in those sections of the state where there is sufficient moisture to rot the manure rapidly. Raw rock phosphate applied with 2.5 tons of manure at the rate of 380 pounds an acre yearly increased the yield of alfalfa 461 pounds an acre more than when manure was applied alone.

In Central and Western Kansas it is necessary to use manure with greater caution than in Eastern Kansas. It should be applied in small quantities at a time, and usually as a top dressing so that it will not interfere with the moisture supply of the plants. Manure may be applied on the ground that is to be listed to corn or kafir, or it may be applied as a top dressing on wheat in the fall or winter. The manure should be scattered with a good manure spreader and it should be set to make just as light an application as possible. If wheat can be top dressed in the fall or early winter the manure serves as a protection to the wheat against blowing and severe freezing, acts as a mulch to prevent evaporation of moisture, and later, when the manure is worked into the soil, it increases the supply of organic matter which enables the soil to hold more water.

In an average of 15 tests in the eastern one-fourth of Kansas extending from 1914 to 1917 inclusive manured wheat made an average yield of 23.2 bushels as compared with 17.4 bushels on unmanured wheat, a difference of 5.8 bushels in favor of manured ground. In the central one-half of Kansas as an average of 11 tests for the same seasons manured wheat produced 24.4 bushels an acre as compared with 20.8 bushels for unmanured wheat showing a difference of 3.6 bushels an acre in favor of manured ground.

Best Results With Manure Spreader

The cost of handling manure may amount to a great deal more than we might think on first consideration, especially when it is handled several times.

"Probably there is no easier and more economical way," says a recent exchange, "for dairy and stock farmers to reduce the chore work and consequently the cost of handling manure than by the use of a litter carrier. The drudgery of barn cleaning is greatly diminished when a self-dumping carrier is a part of the farm equipment.

"A litter carrier is one of the types of barn equipment which all farmers can afford to install. On farms of 100

(Continued on Page 33.)

Cloud Boys Win Pep Trophy

Capper Pig Club is a Training School for Leadership

BY JOHN F. CASE,
Director of Club Work.

MORALE is a magic word. Every Kansas boy became familiar with it after we entered the Great War. The breaking down of German morale at home and at the front hastened the war's end. The morale of our own army was superb. In the face of machine gun fire that seemingly meant suicide, American soldiers attacked with a spirit that swept everything before them. The French called this indomitable spirit "elan." In Kansas we call it pep.

No Capper Pig Club county leader fighting for the pep trophy but met with discouragements that seemed heart-breaking. But with the true Kansas spirit these boys and their team mates kept up the fight. The "morale" of the Capper Pig Club never broke down. The county leaders with their members who really were in the race for honors stayed in the game until the final reports were made. Influenza prevented the holding of many meetings arranged for December when records were to be compared and arrangements made for sending in the stories. But the story of the year's work is a story of loyalty and unselfish service. I have been very proud and happy to be the state leader of such an army of patriotic young Americans.

In awarding the pep trophy and the prizes that go with it there was little to choose between the 10 teams whose standing is given here. And at least 20 more leaders would have won the pep trophy under ordinary conditions. My only regret is that there was but one trophy to award and yet had there been more than one it would have detracted from the value of the prize and the great honor that goes with it. Cloud county won because it was unbeatable. No matter how great were the obstacles that seemed to obstruct the road to victory, Cloud county boys and the dads overcame them. When I came to summarize the work of the clubs I found that Cloud county had accomplished all that had been asked and more. No club in the state faced quite so many discouraging things as confronted county leader Loren Townsdin, but it only seemed to put more pep into his work. Some time ago the county leaders decided by a nearly unanimous vote that the 50 points awarded for leadership must be solely for the work of the leader alone. The assistance of his parents and friends must be a secondary consideration. No boy in the entire club has displayed quite the qualities of leadership exhibited by Loren Townsdin in his two years' work. These are the names of his team mates and the dads who helped win: Monroe Simpson, Clarence Paulsen, Floyd Spear, Harry Mann, Walter Johnson, Henry Byrne, Orville Young, Theodore Tilson, Roy Law, E. M. Simpson and P. J. Paulsen. Monroe, Clarence and Loren were members of the 1917 club.

The leader wins $10 in addition to the pep trophy which will bear his name and that of his comrades who win $5 each and the nine leaders who follow also win $5 each. Here's the standing of the teams:

County and Leader	Grade
Cloud—Loren Townsdin	100
Johnson—Merlyn Andrew	99
Atchison—Bill Brun	99
Riley—"Doc" Holtman	98
Pottawatomie—Glen Schwandt	97
Stafford—Verne Landreth	96
Mitchell—Eugene Creitz	95
Lincoln—Philip Ackerman	95
Lyon—Harvey Stewart	94
Osage—Lawrence Price	93

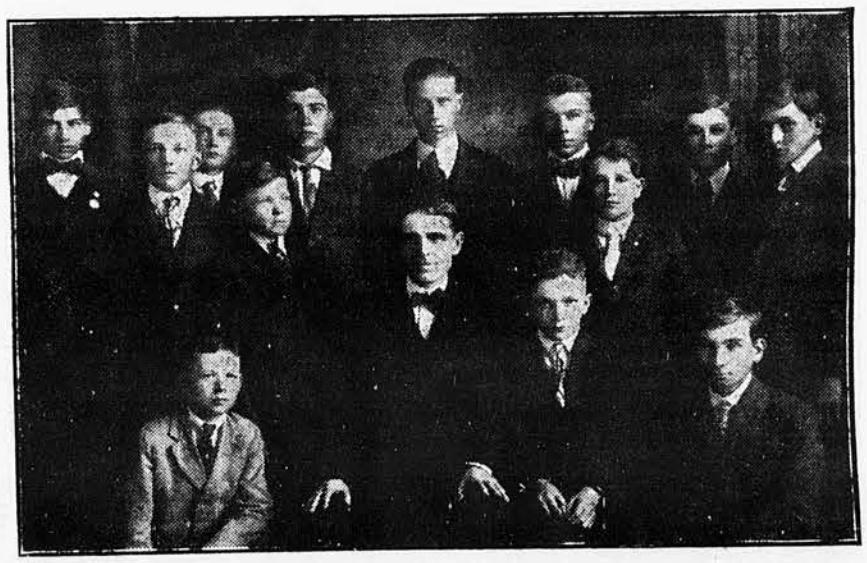
Atchison and Johnson county fought it out to the end. Both clubs did great work. Bill Brun's Atchison county club has the honor of winning the $100 cash prize for the highest grade made by any county club in the open contest. Riley county has cause for rejoicing in the winning of the $50 prize in the father and son department. This prize was won by "Doc." Holtman, county leader, and his father, Frank Holtman. And every other county that was listed in the pep award standing has some boy who is a contender for prizes. There is honor enough for all.

Four of the leaders who won out this year were among the first 10 who led their teams to victory in 1917. When the pep trophy was awarded to Miami county, Cloud county finished tenth. Special commendation is due Philip Ackerman, of Lincoln county. Altho he had but three team mates, Philip put his heart into the work and came thru with flying colors. Bill Brun, of Atchison, and Harvey Stewart, of Lyon county, were close to the top round of the ladder, too, when the contest closed in 1917. These four boys acquired training in leadership that will be worth many times the value of the prizes offered. Training for leadership is the most worth while work of the Capper Pig Club. "The world needs leaders," said Lawrence Price in his talk at the banquet last year. It is true. And the boy who has discovered that he has the ability to lead never will be an "average" boy again. He will not only start things but he'll put them thru.

I wish it were possible to tell you about all the prize winners in this issue, but with hundreds of stories and reports to grade, the task of awarding the prizes still is unfinished. Within a few days, tho, the work will have been completed and happy boys will be receiving checks. From the reports we believe that the profit records of 1916 and 1917 have been exceeded. And we hope to see even better work in 1919. If you have not lined up for work do not fail to send your name to Club Manager Whitman at once. Every Kansas boy 12 to 18 years old is eligible for membership.

The picture shown was taken when Governor Capper visited Concordia last summer and was "captured" by the trophy winning team. Three Republic county boys are in the group. Later in the season the Cloud county club held a picnic that was attended by more than 3,000 persons.

We shall be pleased to receive letters from our readers in regard to plans for getting better roads in Kansas. What have you to suggest?



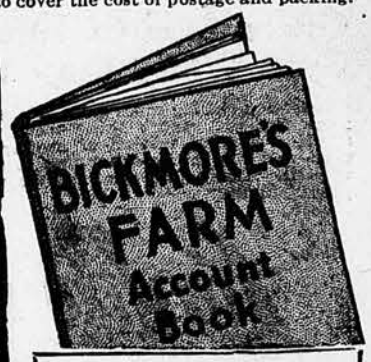
The Winning Team With Governor Capper in the Group. Loren Townsdin is Last in Front Row at the Right.



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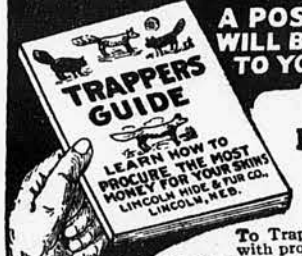
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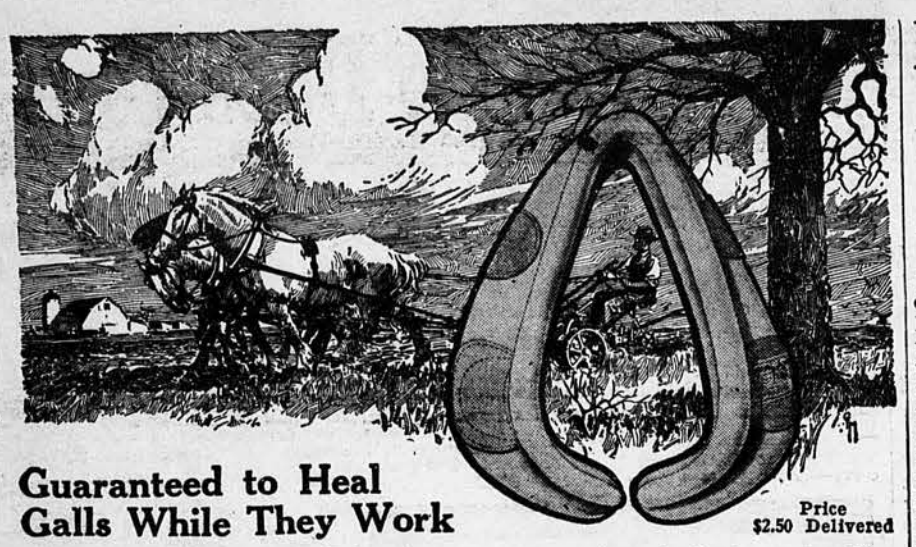
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Kansas Has Many Tenants

More Home Owners are Essential to Prosperity

BY JOHN W. WILKINSON
Associate Editor

IN EVERY state there is now a strong movement to get more men to engage in farming and to encourage them to become landowners. In nearly all of our states we have entirely too many tenants, and the short term lease under which they have had to operate has not encouraged either the renter or owner to make any systematic effort at keeping up the soil fertility or to plan for any permanent system of farming. In the 30 years from 1880 to 1910 the number of farms in the United States increased from 4,009,000 to 6,362,000, the number of those owned from 2,984,000 to 4,007,000, a gain of 1,023,000, or 34.3 per cent, and the number operated by tenants from 1,025,000 to 2,355,000, a gain of 1,330,000, or 129.9 per cent. But in 1910, five-eighths of the farms and 68 per cent of the acreage of all land in farms were operated by owners and 65 per cent of the improved land. The number of farms increased faster than the agricultural population. The only persons not operating farms who could take them up were the younger men, and it is largely from them that the class of tenants has been recruited.

The high prices paid for most farm products during the last two years have caused many capitalists to look upon farms as attractive fields of investments and a number of syndicates were formed to acquire large tracts of land for farming purposes. This has caused many persons to fear that the time might soon come when poorer classes might not be able to purchase farms and that they would have to become tenants of the syndicate farm owners. Such fears are not altogether unwarranted.

A Farm of 30,000 Acres

The harmful effects of land monopoly are especially noticeable here in some of the large estates like those owned by Lord Scully. The heirs of his estate control approximately 170,000 acres in Nebraska, Kansas, Missouri and Illinois. Agents of the Scullys have given notice that large increases, in some cases 100 per cent, in rentals will be demanded for 1919.

An association has been formed in Nuckolls county, Neb., where the estate holds 40,000 acres, and a committee has been appointed to organize the tenants of the 20,000 acres in Gage county for a movement to go on a strike if better rental terms are not offered them. The organization will also seek members for the association among the renters on the 30,000 Scully acres in Marion county, Kan., and also the tenants on the 40,000 acres owned in Missouri and the 40,000 acres in Illinois.

The Scully leases run only for a year, never more. The agents told those who protested that they were at liberty to move next March and leave an opening for tenants willing to pay the advanced rents. Many have occupied the lands for 15 years and own all of the improvements. The estate has promised to help sell these improvements, most of which consist of buildings.

Association Is Incorporated

The association is incorporated. Each member pays an initiation fee and $5 dues for each quarter-section under cultivation. It stands for the principle of collective bargaining. A board of directors has been named to deal directly with the Scully heirs in an effort to obtain a suitable lease. Lawyers employed by the association declare that the lease they now have is worth nothing to the tenants because it is entirely onesided.

The association will also ask for legislation to limit the amount of land which can be held by a non-resident, taxing such more heavily and preventing speculation in land. It will also ask a law creating a commission to pass upon farm rentals.

In Nuckolls county most of the Scully renters are of Danish descent. Most of them have been on the land for several years and have built comfortable homes. They will make a bitter fight to hold them. It is a Scully rule that tenants shall build their houses and barns and plant orchards.

Scully invested heavily in the productive lands of the Middle West, beginning 50 years ago. He had sold his property in Ireland and the revenue went in the virgin lands of the prairie states. Scully frequented the land offices of the railroads and he bought soldiers' claims. He bought much of the land for the proverbial song. It did not cost him much more than $1 an acre, as his investments were in the undeveloped sections. He compelled the renters to make their improvements.

He never parted with a single acre of the land except for railroad right of way, because he knew that the railroads would make his holdings much more valuable. Land that he bought for $1 an acre in Nebraska is now worth from $150 to $200 an acre. This is an unearned increment.

Scully died in 1906. The immense estate now is owned by his widow and sons. When an agitation was started against Scully because he was not a citizen of the United States, he promptly took steps to acquire citizenship. He bought a home in Washington, D. C. Because of his tremendous land holdings and his great wealth, he was nick-named "Lord" Scully by his tenants.

Bad Effects of Tenancy

Many rural districts in Kansas, Nebraska and Oklahoma have been held back in community development because of the large number of tenants. They take but little interest in schools, churches, good roads or any feature of community development. This has resulted largely on account of the conditions under which the average tenant has to lease a farm. He never can lease it for more than one year at a time and he is never sure that he can remain on the farm for a longer period of time. Under such conditions he does not feel as if he is a permanent part of the community and consequently he does not enter into its life with any enthusiasm or personal interest. No community can make satisfactory development until such difficulties have been overcome.

"The remedy," says W. E. Grimes of the department of farm management in the Kansas State Agricultural college, "is in better leasing conditions which will encourage the tenant to remain on the same farm for a number of years. Conditions must be brought about which will make it easier for the tenant to become a land owner. Credit facilities which will enable the tenant to borrow money under more favorable conditions are also advisable."

Interest in land for homes and farms increases in the nation as the population grows. It has become more marked as the area of public land suitable and available for agriculture has diminished. It is intensified at the present time by reason of the suggestion and desire that returned soldiers and others who may wish to obtain farms shall have an opportunity to do so under suitable conditions.

Lands for Soldiers

According to a recent report of the U. S. Department of Agriculture there is still room in the nation for many more persons on farms. The United States proper contains about 1,900 million acres of land, of which an area of 1,140 million acres, or 60 per cent, is tillable. Approximately 367 million acres, or 32 per cent, of this was planted in crops in 1918. In other words, for every 100 acres now tilled 300 acres may be utilized when the country is fully settled. Of course, much of the best land, especially that most easily brought under cultivation and in reasonably easy reach of large consuming centers, is in use. Possibly 85 per cent of it is not yielding full returns.

There are large areas of land in Western Kansas that should be divided into small farms and sold to farmers on easy terms. Many of the returning soldiers and sailors who desire to be-

(Continued on Page 35.)

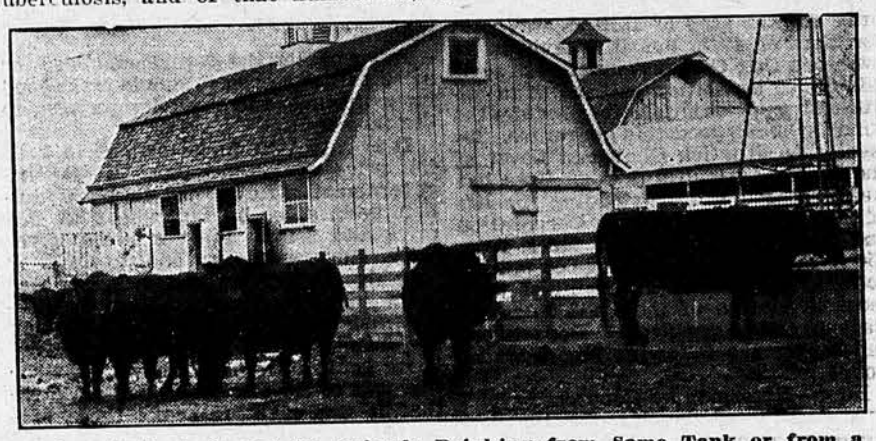
To Check Stock Diseases

Congress Has Voted Money to Fight Tuberculosis

BY H. R. SMITH

A BILL was passed recently by both houses of Congress and signed by the President which provides for an appropriation of ½ million dollars to be used by the Bureau of Animal Industry in the eradication of bovine tuberculosis. While this sum represents only 1½ per cent of the estimated animal loss due to the ravages of tuberculosis in the United States, it is a start in the right direction and undoubtedly will lead to still larger appropriations in the future for this important work.

According to the records of the meat inspection division of the Bureau of Animal Industry, the equivalent of 53 trains of 40 cars each, filled with cattle and hogs, were condemned as inedible at the seven leading Middle West markets during the fiscal year ending June 30, 1917. The official number of cattle slaughtered at all establishments in the United States, where federal inspection is maintained, was 10,936,287 head during the fiscal year ending June 30, 1918. Of that number 222,787 head were found on post mortem to be affected with tuberculosis, of which 40,792 entire carcasses were condemned as inedible. Out of a total of 35,449,247 head of swine slaughtered under federal inspection during the fiscal year ending June 30, 1918, 3,493,188, or nearly 10 per cent were retained for tuberculosis, and of that number 59,748 entire carcasses of hogs were condemned as inedible because of this disease.



Tuberculosis is Spread by Animals Drinking from Same Tank or from a Number Being Fed Together.

This new legislation also authorizes the Bureau of Animal Industry to pay partial indemnity. The maximum amount paid by the federal government as indemnity on reacting cattle slaughtered is $25 on grades and $50 on purebreds. In order to take advantage of this federal appropriation a state must provide at least this much for indemnity purposes and more if thought desirable. The general feeling among Congressmen was that the owners of reacting cattle should stand one-third of the loss. It would seem that with state appropriations to duplicate or exceed the government funds, the inducements would be such as to cause all owners of purebred herds to have their animals tuberculin tested annually. This work is done free of charge to make such herds eligible for certification as tuberculosis-free, accredited herds. When certified as such the owner is permitted to make interstate shipments without special tests and is not held up by various state regulations requiring the 60 or 90 day retest. A clause in the bill makes it possible to return to owners interstate any breeding animal which reacts on retest.

Bovine tuberculosis is causing a greater animal loss to the cattle and hog industry than any other disease. If it can be eliminated from cattle it will disappear automatically in hogs as hogs get the infection thru the milk and droppings of diseased cattle. While tuberculosis is very prevalent thruout the country, it is not highly contagious and can be controlled easily if proper measures are taken. It is more prevalent in dairy sections because cows used for dairy purposes often are crowded together in poorly ventilated buildings. The disease, however is more commonly spread by animals drinking from the same tank or from a number being fed together, making it possible for one diseased animal to infect a large quantity of food by slobbering over it.

By the use of the tuberculin test, which is the only accurate means of finding those animals which have the disease, it is easily possible to segregate or slaughter such and by the use of proper methods of sanitation, eliminate entirely the disease from any herd in a comparatively short time.

Meeting the Breeders' Needs

BY T. W. MORSE

A promising substitute for what the American Royal Livestock show ought to be stands out prominently in the announcements for the fourth annual Kansas National Livestock Exposition at Wichita. Last year's event demonstrated completely the "arrival" of this show and emphasized the failure of Kansas City to improve fully the opportunity, which for years lay open to it.

Last fall, after 20 years, the American Royal occupied unsatisfactory quarters and was limited to three breeds of cattle. This year (its fourth) the "Kansas National" will be held in the largest and most modern fire proof municipally owned livestock exposition building in this country.

This year's appropriations for premiums and expense is $30,000. Eleven breeds are provided for in the premium list. Among cattle there are Shorthorns, Herefords, Aberdeen-Angus cattle, and Holsteins. Among the horses are Percheron standardbred and grade farm draft teams and brood mares. In jack stock this will be the only national show of the season. In hogs there will be Polands and Durocs, and in sheep Hampshires and Shropshires.

The co-operation of livestock record associations has to some extent, determined the breeds to get recognition and several important public sales of breeding animals will be held under the auspices of the respective record associations. Thru some agency, not known to me, an exhibit will be made of fur bearing animals which can be raised under domestication.

While the superintendent is widely known for his successful experience in handling such shows it is important to know that the following business men of Wichita are directors of the "Kansas National" and are among the financial backers of the institution.

F. A. Russell, Cashier, National Bank of Commerce; G. H. Hamilton, President, The State Savings Bank; S. M. Sholl, President, The Union Stock Yards National Bank; Fred W. Dold, President, The Dold Packing Company; J. G. Irwin, General Manager The Cudahy Packing Company; Dan C. Smith, General Manager, Wichita Stock Yards; G. P. Martin, President the Wichita Live Stock Exchange; John E. Wood, President, the Standard Live Stock Commission Company; H. E. Newling, President, Wichita-Oklahoma Serum Company. The officers are Dan C. Smith, President; Fred W. Dold, Vice President; S. M. Sholl, Treasurer; C. C. Miner, Secretary; and F. S. Kirk, Superintendent.

The dates set for this year's exposition are February 26 to March 3, inclusive.

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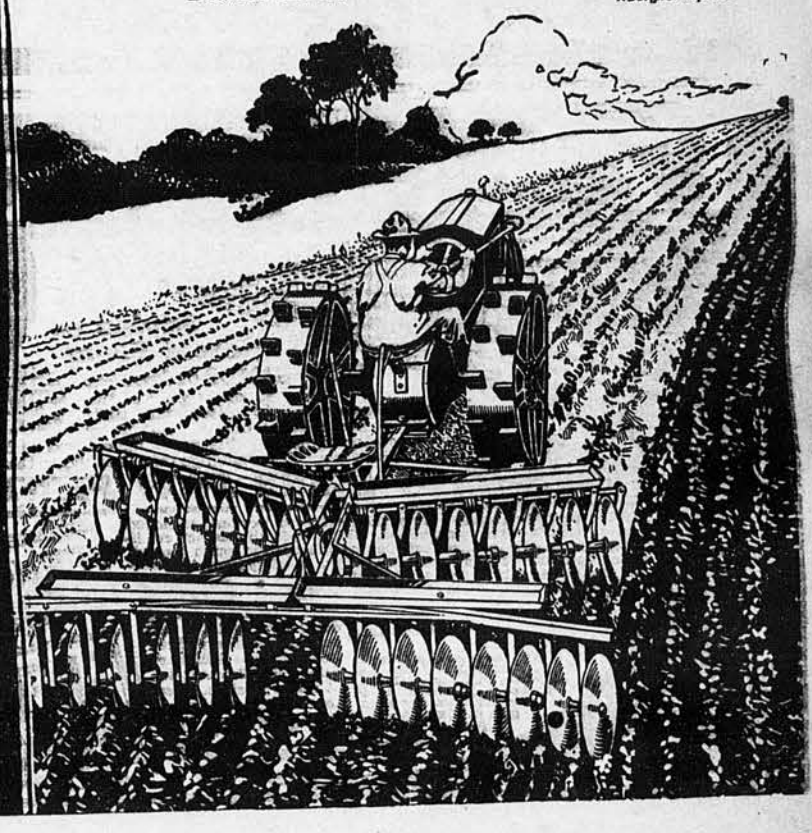
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The Solid Grip Tie

Ask New Wheat Guarantee

Government May Lose a Billion Dollars on the Crop for 1919 if Its Promises to Farmers are Kept

FARMERS thruout the West are anxious to know whether the present Congress will pass any legislation safeguarding the interests of wheat growers who at the urgent call of the National Food Administration increased their acreage of this important cereal to the maximum limit. Some of our grain experts estimate that the fixing of the wheat price at $2.26 a bushel for the crop of 1919 will cause the government to lose from 500 to 750 million dollars and possibly much more.

Unless much of the wheat is winter-killed or damaged by unfavorable crop conditions next spring and summer we may expect a yield of 1¼ billion bushels or 225 million bushels more than was raised in 1915, when the nation's record for wheat production was made. Of this amount only about 600 million bushels can be used at home and the greatest amount we ever have exported was 310 million bushels, but this was at a time when it did not have to compete with Argentina, Australia and other countries. This arrangement this year then might leave the government with more than 300 million bushels of wheat on hand at the close of 1919 for which it would have no market, at the price it was bought.

Protect Against Imports

The National Food Administration has guaranteed the farmers the same price for the crop of 1919 as was paid for that of 1918, but it is evident to everyone that Congress must pass some additional legislation and make an additional appropriation to provide the funds to make good this guarantee. To meet this situation Chairman Lever of the House Agricultural Committee has just prepared a bill extending the life of the United States Grain Corporation and increasing its capital stock from 150 million dollars to about 600 million dollars. The bill is the result of joint recommendation of the Food Administration and Agricultural Department and makes the following recommendations:

First—Extension by Congress beyond June 1, 1920, of the date for the government purchase of the 1919 crop.

Second—Continuance of the Food Administration's Grain Corporation, or creation of a new agency to buy, store and sell 1919 wheat that may be offered to the government, and;

Third—Possible legislative provisions to protect the government against wheat or flour brought in from other countries during the period of effectiveness of the guaranteed price and also to protect buyers of such wheat as long as the wheat is in this country and not consumed.

The memorandum was compiled with the approval of President Wilson, and Secretary Houston in submitting it, said: "The government has made a guarantee and it goes without saying that it must be made effective."

Must Have Funds

Regarding extension of the date of government purchases the memorandum said: "It will be impossible to carry out the guarantee as it is intended by June 1, 1920, and if producers cannot sell their wheat to the United States before that date and are left with wheat on hand, it will be felt that the obligation of the United States has not been carried out in good faith."

"The government purchasing agency," the memorandum set forth, "must have ample funds at all times to purchase thru the United States at the guaranteed price such wheat of the 1919 crop as may be offered to it and also to provide storage facilities to take care of the same by lease or purchase of facilities now in existence or by building additional facilities, or both.

"The appropriation will have to be on a basis to enable the guarantee price to be maintained at all times by purchase of wheat with funds provided by the government and without relying on outside credit."

Chairman Lever estimates the possible wheat yield for 1919 at 1,114,500,000 bushels, of which 90 million would be for seed requirements, 550 million bushels for domestic consumption, leaving 474½ million bushels for export.

The 1919 crop for export, it was pointed out, might sell in competition with that from other countries at a price considerably lower than the guaranteed price, which probably would result in similar reductions at home.

The Food Administration Grain Corporation is maintaining the price for the 1918 crop with its capital of 150 million dollars and its credits, combined with the export demand for wheat. The 1918 crop is estimated at 917,100,000 bushels and on November 29, last, the movement from the farms amounted to 588 million bushels, of which 254 million bushels were in storage.

"It is observed," said the memorandum, "that there is a very large amount of the 1918 crop yet to be moved from the farms, and it will take all the resources of the Grain Corporation and the most careful attention to every detail to carry out the guaranteed price for the crop of 1918. In fact, if the export demand should diminish it is possible that in order to maintain the guaranteed price it may be necessary that there be a further appropriation by congress. On the other hand, if the demand for export wheat should continue, it is hoped that on June 1, 1919, the Grain Corporation may have been able to carry out the obligations of the United States as to the 1918 crop without impairing its capital of 150 million dollars."

But whether the government loses or merely breaks even it should make good its guarantee and keep its promise to the farmers.

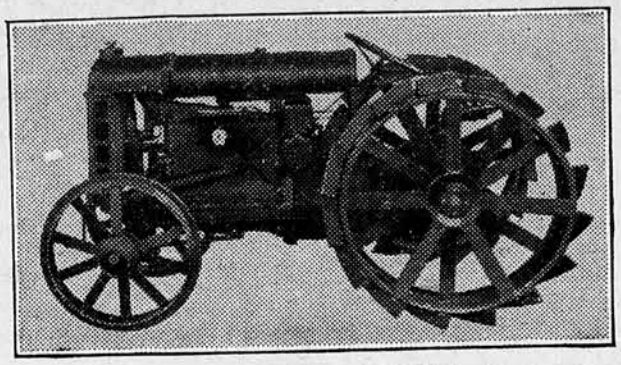
It is said that in its efforts to keep the price of bread down the British government already has lost 350 million dollars by buying wheat at one price and selling it at a much lower price. Our government has spent money lavishly in its war program. It has spent billions of dollars for ammunition and war machinery that now must be junked. This might have been saved if we could only have known that the war was to close so soon. But all agree that it was right to make these purchases, because it seemed that we could not be sure of winning the war without this expenditure for war material. The spending of a great deal of money for wheat also was necessary in order to keep the allies and our own armies supplied with bread. We could not induce farmers to raise all the wheat needed unless they were guaranteed in advance a price that would make the raising of wheat a profitable undertaking. This of course will cost the government a great deal of money, but not nearly so much as the cost of its war machinery and equipment. This investment was fully as necessary as the other. We could not have won the war unless we backed up our bullets with bread. Farmers have planted the wheat to make the bread and have acted in good faith and the government must carry out in good faith its agreement to maintain the price on last year's basis. Every wheat grower in the United States should write his Congressmen to see that all necessary legislation and all necessary appropriations are made to safeguard the present guaranteed price for wheat grown in 1919.

Editors Meet in Topeka

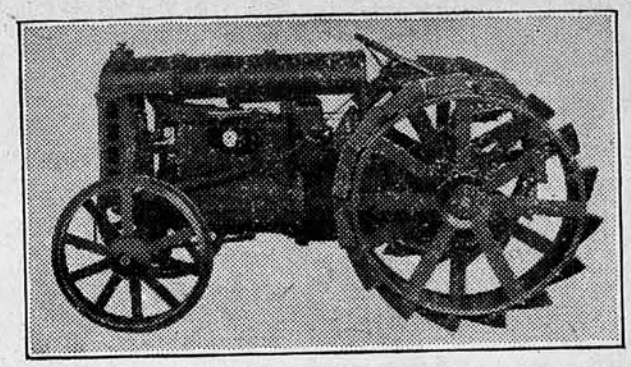
Editors from all parts of Kansas are coming to Topeka for the annual convention of the Kansas Editorial association to be held in Topeka, January 24 and 25. They will be guests at a dinner and entertainment on the first night they are in town of the Topeka Press club. The Chamber of Commerce will provide a big banquet January 24. Special features will be put on by the Press club. Henry J. Allen, who will be governor of the state at that time, will be the principal speaker at the banquet.

The complete program for the annual convention has not been completed, but probably will be announced within a few days.

Write us about any special state legislation that you think is needed at the present time in Kansas.



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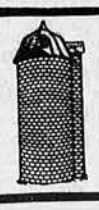
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FARM QUESTIONS

All inquiries about farm matters will be answered free of charge thru this column. Those involving technical points will be referred to specialists for expert advice. Address all letters to John W. Wilkinson, Associate Editor, the Farmers Mail and Breeze, Topeka, Kan.

Frost Proof Corn

Is there such a thing as "frost proof" corn? If so where can it be bought?
Coffeyville, Kan. L. S. D.

There is no such thing as a frost proof corn, but some varieties are more hardy and more resistant to cold than others. See your county farm agent in regard to best variety for your county.
J. W. Wilkinson.

Fair Price for Bees

What is a fair price to pay for a hive of bees, either with or without bee-feed in frames? R. M. B.
Wichita, Kan.

The price may vary from $5 to $15 according to the equipment and the amount of honey in the hive. This means whether it is a "homemade" hive or a good standard factory-made hive, and whether it is 8-frame or 10-frame. The height of the hive also makes a difference, a one-story hive of course will be cheaper than a two-story hive. Roy Bunger.

Wages for Clerks

What is the average price paid clerks in Kansas? As I intend to clerk in a grocery store I shall be pleased to have you answer thru the columns of the Farmers Mail and Breeze. H. J.
Grinnell, Kan.

There is no established or uniform wage paid clerks in grocery and dry goods stores. Capable young men are getting from $75 to $100 a month.

We will no doubt establish the wage for harvesters and threshers thruout the state. I anticipate the wages will be from $4 to $6 a day.
E. E. Frizell.

Kafir for Dairy Cattle

Is kafir good for dairy cattle and should the heads and stalks be fed together? Which is the best feed kafir or feterita?
Narka, Kan. L. D. LIKENS.

Kafir is about 10 per cent less valuable for dairy cows than corn. In feeding kafir it should be threshed and ground to get the best results. In regard to the use of kafir and feterita, I am of the opinion from work done with hogs that kafir is just a little bit more valuable than feterita, altho there is very little difference between the two.
J. B. Fitch.

Red Oats and White Oats

Can you also give me a comparison of results on yields for red and white oats for this section of the state? A. B. CARNEG.
Concordia, Kan.

Red oats ordinarily produce from 10 to 20 per cent more than White oats in this section of the state. This means that Red oats will yield from 3 to 7 bushels on the average more than White. The difference in favor of Red oats becomes less as we go north and greater as we go south in the state. Under your conditions White oats would do, perhaps, a little better than here, but nevertheless, the Red oats would, on the average, outyield the White. L. E. Call.

White Kafir Seed

Can you tell me where I can get some African White kafir for seed and how much difference there is in the yield of the African White and the Blackhull White Dwarf? Is there any difference in maturing?
Myleshoe, Tex. J. H. NAFYIGER.

I know of no one in the state of Kansas that can supply African kafir seed at this time. Some African kafir was brought into this country four or five years ago, but it proved to be very badly mixed, consisting of a number of different types of grain sorghums that ripened irregularly and grew unevenly, and with the exception of one or two seasons, gave unsatisfactory results. There has been no attempt made to perpetuate this strain of kafir, and I am unable at this time to tell you of anyone who has seed available.

We would recommend the Dwarf Blackhull White kafir as being somewhat better for your conditions than the African. The Dwarf Blackhull White kafir will mature in a shorter period of time than the strains of African kafir that we have had at this station.

I am sure that Professor A. H. Leidigh, agronomist, of your Texas Experiment station at College Station, Texas, could put you in touch with farmers in your state who could supply seed of the Dwarf Blackhull variety. I would suggest that you write to him. L. E. Call.

Dairymen Need Silos

Would you advise a dairyman to buy or build a silo? What is the most profitable way to feed corn or kafir? M. S.
Mulvane, Kan.

I would answer yes, if the owner of the dairy cows is a poor man and needs to keep his cows as economically as possible. Another advantage is that with the silo, a man provides succulent feed in winter and utilizes all of his corn or kafir product at its best. Half of the food value of the stalk is below the ear of corn or the head of kafir. This part of the stalk is wasted when fed dry. There is no way in which the entire crop can be put before the cows so economically and profitably as thru the silo.
J. W. Wilkinson.

Flemish Giant Rabbits

I am interested in raising Flemish Giant rabbits for breeding purposes and also for general utility. A book I have states that "smoky" does mated to dark bucks produce the largest stock so far as frame and weight are concerned. Please advise me thru the Farmers Mail and Breeze. WM. HANY.
Canon City, Colo.

The color has nothing to do with either the frame or weight. The "smoky" color mentioned is perhaps what most persons designate as steel gray. As the sire in livestock is regarded as more than half the herd so with rabbits the buck should be selected with great care as more than half of the desired development in the offspring will depend on the buck. For your purpose I would suggest the use of Flemish Giant bucks exclusively.
J. W. Wilkinson.

Cow With Bloat

I have a 6-year-old cow that bloated on alfalfa this fall and we had to stick her in the left side to save her. Ever since that time there has been a watery substance oozing out of the wound and it is getting worse. The cow grunts at times as if in pain. She eats heartily most of the time. Please suggest a remedy.
Elk City, Kan. FRANK DRYBREAD.

I wish to state that when you punctured your cow's abdomen to remove the gas, some of the contents of the paunch undoubtedly gravitated into the abdominal cavity. This has probably produced chronic peritonitis in the cow. This disease will make a cow very unthrifty, though as a rule it does not cause death. There is also a possibility that the opening in the paunch has failed to close properly. It seems to me that a competent graduate veterinarian could enlarge the opening in the abdominal wall, grasp the paunch and close the opening in the latter by means of several stitches. If these stitches hold properly, the chances are that the wound in the abdominal wall will heal spontaneously, because it is the constant oozing of matter which keeps the latter open. I believe that it would be necessary to keep the wound clean by washing it out daily with an antiseptic wash.
R. R. Dykstra.

Sudan Grass for Pasture

I desire you to send information on Sudan grass; whether it is the thing for cattle and horse pasture; whether it will hurt anything when it comes up the second or third time; when is the best time to sow and the best way in this part of the country? Will be pleased to have your attention on this matter. WALTER L. HAMON.
Effingham, Kan.

As you undoubtedly know, Sudan grass is an annual plant, and for that reason has to be planted each season. It is a warm weather plant and should not be sown in the spring until about two weeks after normal corn planting time. With favorable weather, it makes a rapid growth and will ordinarily provide pasture about three weeks after planting. It will continue to provide pasture from that time until frost in the fall. It is relished for pasture by all kinds of stock, especially cattle and hogs, and while it is a sorghum there have been very few, if any, cases of poisoning from pasturing Sudan grass. I would advise, however, care in pasturing Sudan grass after frost, or after the crop has been stunted by a long period of hot, dry weather. There seems to be no danger of pasturing a second growth after the crop has been cut for hay, providing it has not been stunted. L. E. Call.

TOM McNEAL'S ANSWERS

Subscription

If some editor sends me his weekly paper for a year and I never subscribe for it is there a law to make me pay for it in Kansas? READER.

There is no state law in Kansas governing the case. Under the rules of the Postoffice Department if you continued to take the paper out of the postoffice without objection for a year the proprietor of the paper could collect.

Fixing Responsibility

A and B join farms. On A's side is pasture. On B's side crops. B's part of division fence is very far from being a lawful fence. B rents farm to C. A's cattle go thru B's part of fence and damage C's crops. Who should be held for damages? S. P. T.

Probably no one unless B agreed to fix the fence; in which case he might be held but if C rented the farm knowing the condition of the fence he took his chances.

Too Fat

I am a girl 18 years old and weigh about 175 pounds. We all think it is entirely too much. I scarcely can get around. I have an awful appetite and can eat the whole day long. Please give me a good home remedy to decrease appetite and the miserable fat. A. B. R.

Medicine that would destroy your appetite would probably also destroy your health. If you have the will power to restrain your appetite and take sufficient exercise you can reduce your flesh in all probability.

Loss of Wool

I shipped some wool to J. C. Mustiver. The freight bill said that there was 1177 pounds. He sends me receipt for 878 pounds. I have written him for an explanation as to where the other 275 pounds went and can get no answer. Is there any way to take this up with the government, as the government commandeered the wool? I was also charged with 24 pounds for sacks altho they could not have weighed more than 14 or 15 pounds. S. C.

St. John, Kansas.

Better write your member of congress, Jouett Shouse, who is close to Secretary McAdoo.

Who is Responsible

I purchased a watch several years ago with a 20 year guarantee. The gold began to wear off long before the 20 years had elapsed. I took the watch to the jeweler from whom I bought it. He has had the watch for over five months. Every time I inquire for it he makes a different answer or excuse. I have heard rumors lately that he has jewelry belonging to others which he has kept for months making excuses and his honesty is questioned. Can I hold him responsible for the watch? I believe that he will finally say that it was lost in the mail as he claims to have sent it to the company. INQUIRER.

It is my opinion that you can hold him responsible.

Family Trouble

A and B are husband and wife. They are about to separate but have not taken their troubles to court. A threatens to leave sometimes but says that he will not support the children if he goes away. B has property of her own. In case of a separation would A get ½ of B's property? There is to be an estate divided soon among several heirs, B included. What can B do to keep her property out of A's hands? READER.

A cannot get any part of the property of B in case of a separation, and he would be compelled to contribute to the support of his children. A has no right to interfere in any way with B's inheritance. If he should undertake to do so her remedy would be an injunction.

Question of Possession

A's farm joins B's. Until the last two years A's farm has belonged to speculators and has been rented. A's farm is the S. E. quarter and B's the S. W. quarter of the section. Some years ago B set out a hedge on what he said was the dividing line, but according to the farms on each side, which the owners say have been surveyed at different times, the hedge is on A's land about 10 or 12 feet. Now who does the hedge belong to and is there a law in Kansas that will give the strip of land to B just because he has had possession for so long a time? SUBSCRIBER.

Undisputed and notorious possession for a period of 15 years would give title to B, but if the title has been claimed by A or by his grantors then title does not pass. The hedge, however, belongs to B.

Division of Property

My father died leaving several thousand dollars. There are three children; the youngest is not yet 21 years old and is somewhere in France. Does the law require mother to divide with children? She was appointed guardian for the youngest. Can mother take this money and buy a farm without asking the children anything about it? She has an income besides this money. L. P. W.

You do not state whether there was a will or not. If not the estate would be divided equally between the mother and the children, that is half of it would go to the mother and the other half to the three children. The mother has not the right in that event to invest the half belonging to the children without their consent, except that as guardian for the minor she might invest his share.

Rights of Landlord

Is there a law written or unwritten allowing land owners rent of forage crops where no seed crop is grown on land? In case renter cuts such forage crop would the land owner have a right to claim rent when nothing is mentioned in the lease in this regard? SUBSCRIBER.

The terms of the lease would govern. If the lease was a general agreement to divide the crops grown on the farm, no particular crop being specified, then the landlord would be entitled to his share of the forage crop.

Rockefoller, and War Supplies

1. What is the address of John D. Rockefeller?
2. What will the government do with the guns, airplanes, balloons and other things as soon as the war is fully ended? What do you suppose one could buy an airplane from the government for at the close of the war?
3. Could a boy 14 years old be compelled to go to school when his father needs him to shuck corn?
4. What would be a fair price to ask for a patent on a new tractor? FRIEND.

1. A letter addressed to Cleveland, Ohio or to 26 Broadway, New York will reach John D. Rockefeller.
2. I do not know.
3. Yes.
4. That would depend entirely on the probable usefulness and market for the invention patented.

Question of Title

1. The party cannot give satisfactory title so long as there is an unsatisfied mortgage of record.
2. A quit claim deed conveys all the title of the seller but would not give the purchaser any better title than the one possessed by the seller. A quit claim deed is not a cloud upon the title.
3. No, unless the record shows that the land has been sold for taxes.
4. Yes, foreclosure may be commenced on default of any payment of interest.
5. If the mortgage was given in this state it would outlaw in five years after the maturity of the mortgage note, if no payments were made thereon subsequent to maturity.
6. Deeds are sometimes made out and placed in escrow to be delivered upon payment of the purchase price. In that case it is customary to give the purchaser a contract or bond for a deed to protect him until the transaction is completed and full payment made.

Who is Responsible?

On September 27, A put about $300 worth of household goods in a room which he rented from B, as a sleeping room, the understanding being that A was to be permitted to store his goods there without extra charge.

C, who was in the employ of B, was provided with bed and room by the latter.

On October 12, C or his 19 year old son, acting under his father's orders, broke into the room occupied by A, took A's goods out of the room and put them in a dirty room infested with bugs. On October 13 A went to his room and found it open and his goods gone. He went to B to know why his room had been broken into. B said that he had told C that he could have two unoccupied rooms in the house and that C had made a mistake as to the rooms he was to have. When C's attention was called to it he said that it was too bad and promised to put A's goods back but later in the day called A over the 'phone and ordered him to stay out of the room.

In removing the goods belonging to A, C did not take all. He left about $8 or $10 worth of goods belonging to A in the dresser drawer. C is not financially responsible. The door was locked at the time C broke into the room. Is C criminally liable? What is B's responsibility? R. P. S.

I do not believe from your statement of facts that C. can be held liable criminally. He would probably be able to prove that he did not break into the room with a criminal intent. Undoubtedly an action for damages would lie against him but as you say he is not financially responsible there would be no satisfaction in bringing such an action. The next question is concerning the liability of B. who rented the room to A. C. was an employe of B's and by reason of that fact B might be held responsible for C.'s act.

The court might also hold that B. is responsible to a limited extent; that is, having rented the room to A. he was bound to see that A. was not disturbed in his possession of the same. I am inclined to the opinion that B. could be held liable for the damage done to A.'s goods and the damage resulting from being kept out of possession of the room.



The New HART-PARR

Specifications:

Power—Pulls three plows—30 HP on belt. Tested at the last National Plowing Demonstration at Salina, Kansas, developed over 31 HP at 732 RPM.

Motor—2 cylinder twin, 4 cycle. Valve in head. 750 RPM.

Tractor Frame—Cast steel, one piece. No bend, no twist.

Carburetor—New Dray kerosene shunt.

Bearings—S. K. F. and Hyatt.

Speeds—Two forward; one reverse.

Transmission—Selective sliding gear.

Cooling Device—Honeycomb radiator—shaft driven pump and fan.

Lubrication—Force feed.

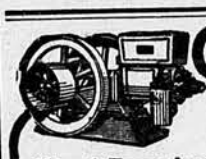
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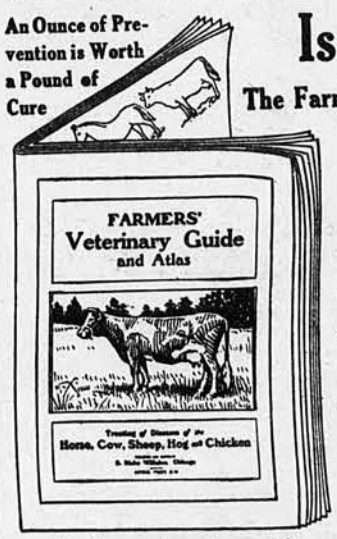
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Farmers Mail and Breeze, Dept. V. G., Topeka, Kansas

Wheat May Freeze Out This Winter

A Severe and Stormy Winter and Late Spring is Likely. A Few Hours Spent in Spreading Straw Insures Crops at Little Expense.

BY W. W. BURGESS

A great deal of wheat, alfalfa, etc., is lost every year by "winter kill," which usually strikes hardest in the late winter and early spring months. According to the opinion of old settlers and weather prophets there is likely to be an unusually late and hard winter on crops this year because of late fall.

Agricultural Colleges, Experiment Stations, County Advisers and thousands of progressive farmers everywhere have demonstrated that "winter kill" can be prevented, "soil blow" avoided, and the soil enriched by spreading straw which also conserves the moisture.

Hand forking of straw won't do because it bunches too much, smothering spots and leaving others bare. It takes a scientifically accurate machine to do the work right, and for that reason I know most of our readers will be glad to learn that Mr. L. D. Rice, president of the Simplex Spreader Mfg. Co., will send full, free information on straw spreading upon request.

Mr. Rice was one of the very first to discover the merits of straw spreading, and has spent a lifetime in bringing to perfection the Simplex Straw and Manure Spreader—a simple, light



THE SIMPLEX IN ACTION

durable machine that spreads dry, wet, chunky or rotted straw or manure to any required depth, and in a swath eighteen to twenty-five feet wide. Over 7,000 of the machines are now being used with great success all over the country. A Simplex costs so little and may be attached to any ordinary wagon, no farmer can afford to be without one.

Mr. Rice, in talking to me the other day said: "I want to see every farmer get a Simplex Straw and Manure Spreader just as fast as I can make them, so for a short time I'm going to send them out with the understanding that they do not have to be paid for for a year."

By getting a Simplex now, your increased yield will more than pay for it, and you won't have a cent invested. The Simplex is sent on a free thirty day trial I advise all readers to write to Mr. L. D. Rice, president, 119 Traders Bldg., Kansas City, Mo., today for full information which is absolutely free and will not obligate you in any way.

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Get larger yields and profits. Provide fire protection for your buildings, and water for your stock by installing an

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THE FRED MUELLER SADDLE & HARNESS COMPANY
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The Brood Sow in Winter

The pig that makes a profit for the owner must be strong and thrifty from the start. The number in the litter and the vigor and size of the pigs are features that may be largely controlled by the management and feeding of the sow during the gestation period.

Try to avoid the use of a scrub boar; keep a type in mind and look for strength, length and quality. Get a purebred boar if possible. He should be neither over-fat nor too thin. Both conditions in the sire at breeding will likely mean a disappointing litter—thin, weak, unthrifty pigs. The boar should be well fed, vigorous and hard from plenty of exercise.

The sow at breeding time should be in good flesh or, in any case, rising in condition. Particularly, in the sow, avoid a too-thin or an over-fat condition. With either of these present it is useless to expect a successful litter. Breed the sow as late in the period of heat as possible—with average individuals on the second day. All evidence points to the truth of the statement that a larger litter will result.

With both sire and dam at breeding two features are of paramount importance—exercise and conservative feeding. Over-feeding is, first, a direct loss of an increasingly valuable commodity. Further, such practice is ruinous to the unborn pigs. Surprising tho it may be, more litters would seem to be ruined thru over-kindness than from neglect.

Make three rules in feeding and caring for the bred sow. 1. Supply a shelter; a well protected shed or a cabin will do, provided it is dry, well bedded and that it will house three or four individuals. 2. Give the sows access to the barnyard; arrange that they not only can, but must, take exercise in order to get their food. 3. Supply these food requisites: Succulent feeds, roughages, mineral requirements and a light meal ration carefully fed.

Roots, such as mangels and sugar beets may be pulped and fed raw. Turnips and potatoes when cooked, may be fed at the rate of 5 to 10 pounds daily. Alfalfa or clover hay, well cured and of the best quality, should be fed in racks kept constantly filled. Meal in the form of bran and shorts, equal parts, or ground oats and shorts, equal parts, may be given at the rate of 2 to 4 pounds daily. Barley may be used also, sparingly. In general, avoid corn except as one quarter of the meal ration or less. Mineral requirements in the form of ashes, earth, and charcoal, should be constantly accessible during the winter. Hairless pigs, or those lacking in evidence of bony structure, usually owe such condition to a lack of mineral requirement in the sow's ration.

Finally provide pure, fresh, dry air, no matter if frosty. Pure air never killed or harmed a healthy pig accustomed to it gradually. Warm, stuffy, damp—"comfortable"—quarters have caused more crippled sows and ruined more litters than all other causes combined. Be guided accordingly. Mill feeds of all kinds are scarce and high-priced. Feed them sparingly, but make the fullest use of roots and clover hay.

G. B. Rothwell.

Right Way to Feed Sheep

Grain feeding of sheep during the early winter months is not absolutely essential where a leguminous roughage and good corn silage or roots are available, but the best results are obtained when a small amount of grain is fed regularly thruout the winter and increased just previous to lambing, say the animal husbandry workers at the state college of agriculture. A grain mixture of two parts whole oats and one part wheat bran by measure has been found satisfactory. If some grain is fed during the winter, less will be required near lambing time. Old ewes especially need plenty of good feed to bring about maximum results.

It is a good plan to place the troughs in which grain is fed to sheep outside of the barn. The troughs should be turned over when not in use. The hay racks inside the shed or barn may be filled while the sheep are outside eating the grain. In this way crowding of ewes while hay is being placed in the racks is avoided and the wool is kept free from chaff and seeds.

It is considered advisable to feed only as much hay as the ewes will clean up and to take out the old hay that has been breathed over; sheep are very particular in their tastes and feed troughs should be kept clean. The hay the sheep have left may be fed to the horses or colts.

Dates to Breed Beef Cows

In order to have a uniform herd of calves, cows should be bred at a definite time of year with this point in view. For fall and early winter calves (November and December), cows should be bred during February and March. For spring calves (February and March), which in most cases is a more desirable date to have the calves born, the cows should be bred during May and June. Where milk for family use during winter months is not an important consideration cows may be more cheaply wintered and calves escape flies and hot weather when born at that time. In all breeding operations purebred sires only should be used.

Breeders of purebred cattle who desire to grow calves for exhibition should breed their cows from December 1 to December 15 to produce calves of senior classification, and from April 1 to April 15 for calves of junior rating.

Roughage for Livestock

The coming of peace will increase, not diminish, the demands made on the farmers of this country for the saving of grain and utilization to the fullest extent of all coarse roughages such as cheap hay, straw, and stover in all its various forms. The waste of stover or other roughages in the field will be a reproach and one which is emphasized all the more by the high price of hay, which, to a large extent, may be replaced by them. To utilize corn stover to best advantage it should be used early in the winter, saving other roughages until later. Other coarse roughages may also be used to better advantage by feeding them to dry cows and feeder steers, saving the more desirable roughages for breeding animals and calves. Dry cows and steers may be wintered largely on roughages alone by beginning to feed them earlier in the winter, before they begin to lose weight. This is particularly true of the cattle shipped into the Southwestern states from the drouth area of the Southwest. These cattle are in somewhat thin condition and should be fed more liberally than native cattle, at least until well started thru the winter feeding period.

To Poultry Club Members

BY JOHN F. CASE

Did you ever take a vacation, girls, when dad and mother needed your help the very most? A vacation when the doctor came and gave you good advice and nasty medicine and told you to "stay in bed a few days and you'll be all right?" I suspect you have, and altho dad and mother were very nice and sympathetic they felt just a little provoked because you took such an inopportune time to rest. And that's how I feel right now.

Your secretary, Bertha Schmidt, is taking a vacation right here at the beginning of the new year. No, it isn't the "flu," but the doctor says she must stay away from her desk a few days. And that desk is piled high with reports from girls who are eager to hear who has won the pep trophy and the other prize awards. You'll be patient, I'm sure, and by next week we hope Miss Bertha will be at work again and we can at least tell you who won the pep trophy and the special county prize. The announcement of the winners in the open contest will be made in the special poultry number of the Farmers Mail and Breeze, January 25. Don't worry about your secretary, whom I know you love dearly, for the doctor says "nothing serious." But send her a card if you wish.

Cash for Poultry Letters

The Farmers Mail and Breeze desires to get a number of good letters on poultry farming and marketing. Tell us your experience in raising chickens, ducks, geese, turkeys and pigeons, and discuss their winter care and feeding. What feeds have you found best to make hens lay? What success have you had in marketing eggs and poultry? We will give a number cash prizes for the best letters.

Keeping Books—For the best letters on Keeping Books and Poultry Records $5 will be given for the first prize, and $3 for the second prize.

Poultry Equipment—For the best letters on Housing, Nests, and Equipment we offer $3 for the first prize, and $2 for the second.

Incubators—For the best letters on Incubators and their Management $3 will be given for the first prize and $2 for the second prize.

Directions—Write only on one side of paper. Letters of 50 to 100 words are preferred, but no letter should exceed 500 words in length. All articles should reach us not later than January 10. Send us any photographs you may have that would be of interest. Address all letters to John W. Wilkinson, Poultry Editor, The Farmers Mail and Breeze, Topeka, Kan.

Western Farm Congress

Representatives of agricultural, manufacturing, labor and business from eighteen states will meet in Omaha February 4, 5, and 6 next, when the Trans-Mississippi Readjustment Congress meets there.

The states included in this congress are Missouri, Kansas, Iowa, Nebraska, Minnesota, Colorado, North Dakota, South Dakota, Idaho, Wyoming, Montana, Utah, Arizona, New Mexico, Nevada, California, Washington and Oregon.

State Poultry Show Jan. 6

An annual appropriation of $1,000 will be asked of the coming legislature by the Kansas State Poultry association to help advance the poultry industry in the state, and to make the state show one of the biggest in the West, with possibly a free gate, it was announced yesterday by Topeka members of the association, who are making preparations for the show, which will be held in the city auditorium in Topeka during the entire week beginning January 6. More than 1,500 birds will be shown at this show judging from the rapidity with which entries are now being reecived.

In addition to the cash prizes offered by the association for regular entries, ranging from 50 cents to $2 for single birds and from $1 to $6 for exhibition pens, there will be several hundred special premiums of various sorts. One of these will be a $25 silver cup for the best bird in the show; another a $30 special for the best pen. A large number of ribbons will be included in this list of specials. Entries closed on the evening of Thursday, January 2. One of the features of the show will be a special exhibit from the Kansas State Agricultural college, with an expert in charge to answer any questions that may be asked.

Charles M. Swan, of Lansing, superintendent of the state penitentiary poultry farm, is superintendent of the show, and A. J. Meyers, of Leavenworth, is his assistant. Judges will be E. C. Branch of Lee's Summit, Mo., and V. C. Hobbs, of Kansas City. Thomas Owen, of Topeka, is secretary-treasurer of the state association and secretary of the show.

Easy to Get Winter Eggs

Any poultry raiser can keep his hens laying through the fall and winter when egg prices are highest. Many poultrymen are doubling their egg yield and profits by using Rockledge Egg Tonic, which revitalizes the flock and makes the hens lay. Give the hens a little of this concentrated Egg Tonic in their drinking water and you will be amazed at the eggs you get. If you want to make money with your hens by all means have Firman L. Carswell, 404 Gateway Station, Kansas City, Mo., send you a season's supply of this wonderful Egg Tonic for $1.00 (prepaid). Two big Kansas City banks guarantee if you are not absolutely satisfied your dollar will be returned on request and the Egg Tonic will cost you nothing. Send a dollar today, or write Mr. Carswell for his free book, which tells how you can make money with poultry.—Advertisement.



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Let me tell you how you can get this FORDSON (Henry Ford) Tractor WITHOUT COST—for a few week's spare time work this winter. You need no experience, nor money. Live right at home—keep on your regular work. Any ambitious farmer can qualify as the owner of this FORDSON Tractor, which will be shipped this winter, freight prepaid, in time for early spring plowing.

Being small, light and economical, the FORDSON TRACTOR is adapted for use on small farms as well as on the largest. It will pull all farm implements, and do the work generally done by horses. In addition, by its belt pulley, the tractor will drive farm machinery, such as thrasher, ensilage cutter, saw mills, etc.

Send me your name today for my big free FORDSON offer—also pictures, and full description of THE FORDSON TRACTOR. A Postal will do.

H. SHUGARD, St. Paul, Minn.

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Calendar FREE

With every order received before January 22, 1919

Note If you do not find your favorite magazine in clubs listed above, make up your own combination of magazines and write us for our special price. We can save you money on any two or more magazines providing they are clubbed with our publication.

Jan. 22 the Last Day

Farmers Mail and Breeze, Topeka, Kan.

Enclosed find $ and one 25c coupon for which please send me all the periodicals named in Club No. for the term of one year and a calendar free.

Name .....

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R. F. D..... Box..... State.....

Armenians Must Have Relief

BY CHARLES DILLON

Influenza throughout the nation has interfered with the work of organization for the Armenian relief drive, scheduled for January 12 to 18. In the Middle West conditions have improved, however, so that, with the Red Cross membership campaign out of the way the Armenian committees are making progress. Meanwhile, with most of America enjoying the holiday season, the unhappy millions of the Near East continue to starve and suffer. Just how this fact has been impressed upon the people of America has been shown by the liberal response to appeals made in a continued campaign having nothing to do with the January drive. Farmers and their families are by all odds the more liberal givers in numbers and amounts. In Kansas, for instance, where the state committee has maintained an organization for nearly two years, the contributions for Armenia have not ceased even while campaigns were in progress for Liberty Bonds, War Savings Stamps or Red Cross, altho no letters of appeal were ever sent out in those periods. The rural families simply kept their regular weekly or monthly remittances.

Perhaps, no better system has been conceived than that involving payments by the week or month. In hundreds of cases farmers are sending in to state committees from $12 to $150 a year in monthly payments for the relief of sufferers in the Near East. A dollar a month isn't much, and most of us can spare a lot more than that every week. It is an exceedingly well-managed farm that doesn't record more than that much in waste in seven days.

Occasionally one encounters the "let-down-now-that-the-war-is-over," kind of farmer, but not often. Farmers know, perhaps more keenly than the city men, that even with the war ended, or at least with the fighting at a standstill, the need for food is even more insistent than previously. For one thing the surrender of Turkey opened the way for several millions of refugees back to rescue, and these must be fed by the Armenian-Syrian Relief Committee and the Red Cross. The Red Cross has done wonderfully well, but it can spend only a few hundred thousands of dollars, and millions are needed. Perhaps it isn't easy to imagine 400,000 children, mostly orphans, with nothing to eat, and with little clothing. Once get the picture into your minds and you won't be slow in contributing to the fund of 30 millions in the drive, January 12 to 19.

Store Farm Machinery

The high cost of farm machinery undoubtedly has resulted in the carrying over of a large amount of old equipment for use next spring. With the fall work well out of the way, attention should now be given to the repair of all this equipment. Farmers' Bulletins Nos. 946 and 947 give detailed information as to the repair of plows, harrows, mowers, and binders. Copies of these bulletins will be sent to any one making application for the same to the Division of Publications, U. S. Department of Agriculture.

Special attention should be given to the iron boxes in the hubs in the iron wheels of plows, planters, cultivators, hay rakes, and similar tools. These boxes are replaceable and can be removed easily by unscrewing the large nut on the outside of the wheel that holds these boxes in place. When this nut is removed a few taps of the hammer will usually drive the box out of the hub and a new one can be inserted easily. These boxes are numbered, so that it is not a difficult matter to obtain duplicates from the local implement dealer. However, it may be necessary to order these from supply houses in distant cities, and it is advisable to attend to this matter at once, so that the new boxes can be put in the wheel before the tools are needed for next spring's work.

If the axles are badly worn on the underside, sometimes they can be reversed and turned upside down, or they can be replaced with new axles. Where this is impossible, they can oftentimes be repaired by using Babbitt metal.

After the implement has been thoroly overhauled and repaired, it should be given a good coat of paint. If the old paint is gone or badly worn, it is advisable to apply a coat of linseed oil with a small amount of paint as the first coat over the woodwork. After this is thoroly dried, a second coat can be applied over the entire machine. Mold-boards and plow shares, the steel teeth or sweeps of cultivators, should be smeared with cup grease or wagon grease so as to prevent their rusting. Put the implements under cover, where they will be protected from the weather. Often the implement can be taken apart or the wheels removed to economize space for storage.

Hog Prices for 1919

The Food Administration has decided that the price of hogs for January shall be continued on the same basis as in November and December. This means that the guaranteed minimum price for January will be $17.50 a hundred. Throwouts are to include pigs under 150 pounds, stags, boars, thin sows and skips.

With prices for corn constantly advancing and frequent embargoes coming on livestock shipments the outlook for hog men is not altogether very roseate. The Food Administration insists that these embargoes aid in controlling the situation, but some of the feeders think it has just the opposite effect. It created a panic among hog men so that each time the embargo was lifted there was a great rush of hogs to market regardless of whether they were in good marketable condition. Its effect has been a great deal like the temporary closing of a bank, to prevent excessive withdrawals of money. Such expedients nearly always prove disastrous.

If the Food Administration desires to stabilize the market and to insure future pork production it should fix the price of both hogs and corn for at least three months at a time. The monthly plan of fixing prices is not likely to be any more satisfactory in the future than it has been in the past. Prices of both hogs and corn should be so adjusted as to insure a reasonable profit for farmers on both products.

The Draft Horse Situation

BY T. W. MORSE

There is nothing top heavy about the supply of good serviceable draft stallions today. Offerings of stallions of breeding age for the usual combination sales are light, altho on many farms there are yearlings and colts and undergrown 2-year-olds which can be bought cheap. Dealers are beginning to look them over, but until feed and help conditions become better the men buying this undeveloped stuff will bid low and go slow. In a general way these dealers and breeders possess the same knowledge and viewpoint as is revealed in the following paragraphs, quoted from statements of two men whose business it is to feel the pulse of the nation's horse business.

"I am of the opinion that the owners of Percheron, Shire, Belgian, or Clydesdale stallions could sell them now quite easily on the Pacific Coast, provided they put a reasonable price on their animals.

"I think the day of the $3000 to $5000 draft stallion for use on grade mares is over for at least the next ten years. The stallion men will have to get down on earth if they want to do any business, and if they do, they can make a whole bunch of sales."

"Miller and Lux who own 10,000 horses in California alone, believe that heavy draft horses will be in strong demand within a few years, and at high prices. Anticipating this they are breeding every available mare, 1800 to stallions and 700 to jacks—and intend to be prepared to reap the benefit of the probable demand."

Crop Reporters Needed

The Farmers Mail and Breeze still needs crop reporters in a few counties and will make an attractive offer to anyone who will undertake this work. Crop reporters are desired in the following counties: Allen, Chase, Chautauqua, Comanche, Greeley, Jackson, Kingman, Lane, Pottawatomie, Rice, Smith, Stanton, Wallace, Washington, Wichita and Wyandotte. For additional information write John W. Wilkinson, Associate Editor, the Farmers Mail and Breeze.

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SPECIAL OFFER $3.75 Enough Torpedoes for 50 hogs, only $5.75. For 100 shoats, $7.00; 200 shoats, $14.00. Money back if not satisfactory. Order Today

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L-Ty-To doubles life of tires, cures Punctures automatically and permanently the instant they occur. Prevents Blow-outs, Rim-cuts, Under-inflation and Tire-Troubles. Give size of Tires used and let us tell you how you can try L-Ty-To the Tire Saver in your own Tires and Tubes or try L-Ty-To Tires and Tubes at our expense and risk. Delivered Free on approval.

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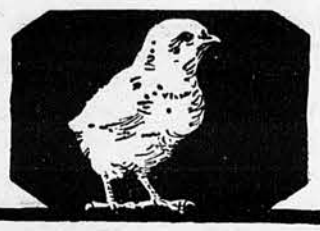
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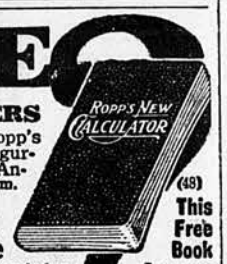
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The Green Ledger,	Miss M. E. Braddon
Barbara,	The Duchess.
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For a limited time we will send our big fashion book illustrating and describing 200 latest styles for ladies and children to all who send us six cents in postage stamps to pay cost of mailing. Address, The Household Pattern Dept. 7, Topeka, Kansas.

Wheat Price in 1919

BY CHARLES DILLON

The President's proclamation of September 2, 1918, establishing guaranteed prices for the wheat crop of 1919 applies to wheat harvested in the United States during 1919 and offered for sale before June 1, 1920. As in the case of the crop of 1918, the wheat must be offered for sale "to such agent or employe of the United States or other person as may be hereafter designated" at any one of the principal primary markets. Up to the present, however, the agency by which the wheat crop of 1919 is to be purchased has not been designated.

Thus, altho the guarantee for the next wheat crop will continue until June 1, 1920, there is no present assurance that it will be purchased or handled by the Food Administration Grain Corporation.

There should be no doubt as to how the government's guaranteed wheat price is to be made good. If further legislation is necessary, it should be enacted before the term of the present congress ends in March. It might be well for farmers to write their Senators and Congressmen at once, urging that all doubt as to just how the wheat crop of 1919 is to be handled be removed. We may have a very large wheat crop in Kansas next summer. We never can tell. But every farmer certainly ought to know—if the Government is to guarantee the price—just what the price is to be. If some Government agency is to buy this wheat, what and where will be that agency? Who knows? Farmers can feel no assurance of anything, apparently, unless they assert themselves. They have representatives in Congress, and they will soon have Senator Capper, but experience has shown that if—as Ed Howe, of Atchison, says—we neglect to make a noise occasionally we will never be heard. Your representatives will work for you, but you'll have to write and tell what you want and when and why.

The President's proclamation of February 21, 1918, fixing guaranteed prices for the wheat crop of 1918 applies to wheat "harvested in the United States during 1918 and offered for sale before the first day of June, 1919, to such agent or employe of the United States, or other person as may hereafter be designated" at the principal primary markets specified. The Food Administration Grain Corporation was designated June 21, 1918, to purchase the wheat crop of 1918 and will therefore continue to exercise that duty and obligation even if peace should be signed prior to June 1, 1919. The Food Control Act provides that termination of the act shall not affect any obligation accrued or accruing during its existence, and the purchase of the wheat crop of 1918 is such an obligation.

Now you know all about it. Perhaps it might be a good plan to write Senator Charles Curtis, Washington, and get him to make inquiry about this for you.

Mr. Mohler's Annual Meeting

The forty-eighth annual meeting of the Kansas State Board of Agriculture will be held in Memorial Hall, northeast corner 10th and Jackson streets, January 8-10. This is the program:

Wednesday, January 8, AFTERNOON SESSION—Opening at 4 o'clock. Roll-call; Appointment of Committees; Reading of Minutes of Preceding Meeting; Report of Committee on Credentials.

All sessions are open to the public, and every person attending is invited and urged to ask questions and participate in the discussions following addresses and paper.

EVENING SESSION—7:30 o'clock. Invocation, Dr. Edmund Janes Kulp, Pastor First M. E. Church, Topeka; Music, The Liberty Sextet, Topeka; Address of Welcome, Governor Arthur Capper; Music, The Liberty Sextet; Address of Welcome on Behalf of Topeka, Mayor Jay E. House; Response, President G. G. Wolf; Music, The Liberty Sextet; Education in Reorganization, D. W. Kurtz, President McPherson College.

Thursday, January 9, MORNING SESSION—9 o'clock. Invocation, Rev. Alfred E. Gregory, Pastor First Congregational Church, Topeka; Sweet Clover and Cattle Raising, Frank Coverdale, Delmar, Iowa; Standards and Permanency in the Beef Making Industry, Frank D. Tomson, Editor, The Shorthorn in America; The Future of the Draft Horse, Wayne Dinsmore, Secretary Percheron Society of America; Getting Out of the Ruts, Dr. D. F. Luckey, State Veterinarian, Columbia, Mo.

AFTERNOON SESSION—1:30 o'clock. Today's Dairy Problems, M. D. Munn, President of American Jersey Cattle Club and the National Dairy Council, St. Paul, Minn.; The Silo as the Farmer's Friend, Geo. Lenhert, Dairy Farmer, Abilene; How Shall the World Be Fed?, John C. Ketcham, Lecturer of the National Grange, Hastings, Mich.; Some Needed Reforms in Kansas' Taxation System, Samuel T. Howe, Chairman State Tax Commission and former President National Tax Association.

EVENING SESSION—7:30 o'clock. Music, Modoc Club, Topeka; A Privileged Woman, Virginia C. Meredith, West Lafayette, Ind.; Music, Modoc Club; Arms and Agriculture, General Leonard Wood, Camp Funston.

Friday, January 10, MORNING SESSION—9 o'clock. Invocation, Rev. Robert A. Schell, Pastor First Christian Church, Topeka; The Farmer Bee-keeper, Chas. B. Mize, President Kansas Bee-Keepers Ass'n, Mt. Hope, Kan.; Irrigation Progress and Possibilities in Kansas, I. L. Diesem, former President State Irrigation Congress, Garden City, Kan.; Making Farming Safe on the Plains, John Fields, Editor, Oklahoma Farmer, Oklahoma City, Okla.; Labor Problems, E. E. Frizell, State Farm Help Specialist, Larned, Kan., and J. Will Kelley, State Director U. S. Employment Service, Topeka; Query Box.

AFTERNOON SESSION—1:30 o'clock. The Place Entertainment Holds in the Development of a State, Ray P. Speer, of American Association of Fairs and Expositions, St. Paul, Minn.; Ten-minute talks on phases of fair management: Co-operating with the State Fair, A. L. Sponsler, Secretary, Hutchinson; The Free Fair Idea, Phil Eastman, Secretary, Topeka; Relation of Speed Ring to County Fairs, J. W. Howe, Secretary Dickinson County Fair Association; Livestock Exhibits at County Fairs, F. D. Beattie, Secretary Allen County Fair; Agriculture at the County Fair, Geo. K. Bideau, Secretary Neosho County Fair.

Election of Members.

Report Resolutions Committee.

Unfinished Business.

Installation of New Board, at the Secretary's office.

At 6:30 a get-acquainted dinner, to which all delegates, visitors and others are cordially invited, will be served at the Chamber of Commerce, southwest corner Seventh and Quincy streets. A program of music and toasts will be given. Plates, seventy-five cents.

Farm Prices and Retail Prices

There is much that we can do to eliminate waste and needless expense and thereby to reduce comparatively the cost of living without reducing proportionately the rewards of the producers. We have made some progress during the last few years in reducing the cost of distribution of food products from the farm to the table, yet much remains to be done. In 1915 the ratio of the farm price to the retail price on several of the principal food products was as follows:

Wheat, 59; potatoes, 60; onions, 46; beans, 60; eggs, 59; hens, 59; beef cattle, 47; hogs, 34.

In July, 1918, the ratios were:

Wheat, 70; potatoes, 50; onions, 54; beans, 57; eggs, 67; hens, 61; beef cattle, 46; hogs, 42.

On all except potatoes, beans and beef cattle the ratio had increased, and on these it had decreased. On the average, there is some improvement, but yet it costs from 30 to 60 per cent of the retail value of the product to get it from the farm to the table. The cost with perishable products is much greater.

Road Building in Kansas

Seven thousand men will be needed to carry on the road building program outlined for Kansas during the next two years, according to W. C. Markham, secretary of the state highway commission. While the extensive two year program of road building, which calls for an approximate expenditure of 14 million dollars will not start before early next spring, everything will be ready for the employment of thousands of men when the work does begin. Mr. Markham's estimate includes all labor to be used in actual construction of hard surface roads and in the manufacture of road materials.

Plans for hard surface roads already petitioned for are being sent to Washington for approval as rapidly as possible, in order to facilitate the rushing of work at the earliest possible moment. This is necessary in order to give employment to the many thousands of men who will return from the army and navy service, as well as those who return from essential war industries. It is in line with the recommendations of J. Will Kelley, state director of the United States Employment Service, that haste be made in opening the way for placing jobs at the disposal of these men.

Cash for Poultry Letters

The Farmers Mail and Breeze desires to get a number of good letters on poultry farming and marketing. Tell us your experience in raising chickens, ducks, geese, turkeys and pigeons, and discuss their winter care and feeding. What feeds have you found best to make hens lay? What success have you had in marketing eggs and poultry? We will give a number cash prizes for the best letters.

Keeping Books—For the best letters on Keeping Books and Poultry Records $5 will be given for the first prize, and $3 for the second prize.

Poultry Equipment—For the best letters on Housing, Nests, and Equipment we offer $3 for the first prize, and $2 for the second.

Incubators—For the best letters on Incubators and their Management $3 will be given for the first prize and $2 for the second prize.

Directions—Write only on one side of paper. Letters of 50 to 100 words are preferred, but no letter should exceed 500 words in length. All articles should reach us not later than January 10. Send us any photographs you may have that would be of interest. Address all letters to John W. Wilkinson, Poultry Editor, The Farmers Mail and Breeze, Topeka, Kan.

How to Raise Skunks

ROBERT K. NABOURS
Kansas State Agricultural College

Skunk skins are generally graded on the extent of the white areas. The best grade, No. 1, are those on which there is no white, or only a small area on the forehead. No. 2 skins, or "short stripe," do not have the white extending back farther than the middle of the body. No. 3 pelts have long narrow white stripes, and No. 4, the lowest grade, have extended broad white stripes. The northern skins are generally considered of more value than those from southern points.

A fence of 1-inch mesh galvanized poultry netting placed in the ground 2½-3 feet and extending above the ground about 3 feet, and having an overhanging inside barrier at the top will hold skunks. In order to keep out dogs, and other intruders, the overhanging barrier should extend outside as well as inside. Skunks are powerful diggers and will burrow out if possible; so too great care is scarcely possible.

In captivity skunks eat a great variety of food, such as bread, cooked and even raw vegetables, fruits, meat, fish and insects. Table scraps, with occasional raw meat, will keep the animals in good condition.

The scent, or "musk," glands may be easily removed, especially from young skunks, thus preventing the notoriously disagreeable odor. Removal of these glands is of more danger to older skunks, but scarcely effects the younger ones at all.

Those interested in skunk breeding should obtain from the U. S. Biological Survey, Washington, D. C., Farmers' Bulletin 587, "Economic Value of North American Skunks," D. E. Lantz. This bulletin contains the most concise and complete instructions available on skunks and their care.

Wool Purchases Cease

That the Government will not buy any of the 1918 wool clip after December 31, is stated in a telegram to A. J. Meyer, director of extension service of the University of Missouri. This means that anyone who might be holding back old wool for higher prices will not receive them from the government. The message says:

"The government will not purchase any wool shorn during 1918 unless it has been loaded on cars and billed thru to an approved dealer in an approved distributing center on or prior to December 31, 1918, and then only in case such approved dealer file a statement and a copy of the invoice thereof within five days after receipt of invoice."

Grain Sorghum Increasing

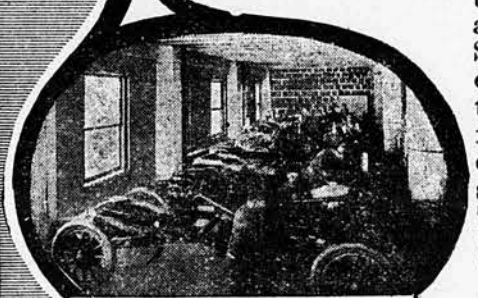
Grain sorghum area increased from 3,944,000 acres in 1916 to 5,153,000 in 1917, or more than 30 per cent, while the production increased from 53,858,000 to 75,866,000 bushels, or over 40 per cent. This largely increased quantity of grain was consumed thru the ordinary channels without any undue drop in price. Farmers report excellent results from Dwarf milo and Dawn kafir, the varieties bred and distributed by the United States Department of agriculture, and the demand for seed increases. In parts of Arizona and California Dwarf milo is grown successfully on irrigated land after barley is harvested, thus enabling the grower to produce two grain crops on the same land in one year.



Sweeney Graduates Make Big Money You Can Do It Too

E. J. Sweeney
President

THERE are thousands of opportunities in this country for the trained mechanic—more so now than there were during the war. We have entered the age of power machinery. The biggest salaries in the history of the Gas Engine business are being paid the men who "know how." If you are mechanically inclined—if you really want to succeed and have ambition, you can turn your desires into dollars by coming to the great Sweeney School and learning to be an Automobile mechanic, tractor operator, truck driver, aeroplane expert, oxy-acetylene welder, vulcanizer, machinist or electrical expert. In eight weeks at the Sweeney School, you can learn the business and be able to cash in on your time. This fact was proven in the Sweeney Army School where in sixty days time, we taught Soldier Mechanics who filled Government requirements. No previous experience or education is necessary. You don't have to be other than ambitious and industrious. The SWEENEY SYSTEM of training is practical from start to finish. No books are used and you do not have to spend weeks listening to dry lectures. From your very first day in school, you do actual motor work on hundreds of live engines. The **Sweeney System is the** original "learn by doing" method.



Auto Mechanics
Earn $125.00 to $400.00 a Month

Success Awaits You As a Sweeney Graduate

Look at the views of my students doing actual work, notice how interested they are. These boys will soon be ready to take positions in all parts of the country, paying them from $100 to $400 per month. You can do it too. Just picture yourself in a few weeks as a skilled mechanic, either holding a big job or running a prosperous business of your own. Take action now, LEARN A TRADE! Be a credit to yourself. Be independent.



Tractor Operators
Earn $150.00 to $400.00 a Month



Airplane Mechanics
Earn $200.00 Up A Month

$200,000.00 Army School Equipment Now Part of Regular Sweeney School

The Sweeney Army School that trained 5,000 soldier mechanics for our Government has been made a part of the regular Sweeney School. **All of** the immense equipment that was used to train the soldiers, including hundreds of new motors has been added to the already huge equipment in the Sweeney Building. Never before in the history of the Gas Engine has there been such a wonderful outlay of automobiles, tractors, trucks, and aeroplanes gathered together for instruction purposes. Never before has there been such an immense corps of master instructors in one organization. Think of it. You now have the opportunity of getting your training from the same expert mechanics who trained Uncle Sam's boys and on the same equipment. The Sweeney School has been enlarged 100 per cent, but the tuition has **not** advanced a cent. Do you realize what this means to you? Do you realize that your chance has come to MAKE GOOD?



Truck Experts
Earn $150.00 to $500.00 a Month



Welding Experts
Earn $150.00 Up A Month

REMEMBER THIS A new order of things has come out of the war. America is through with the unskilled man. From now on, only the trained man counts. Here is the proof. Last year, our country, with millions of her best men gone to war, actually raised more crops and produced more manufactured goods than any year in history. How was this done? First by training the unskilled and next, by making every able bodied man either work or fight. This should be a warning to the untrained man—the peace slogan is, Work or learn how. The man who does not know a trade better wake up and prepare himself for the future. No man should allow himself to be crowded out of success by lack of training. If a man has any backbone at all the Sweeney School will equip him to fight the battles of life and show him how to win success.



Vulcanizing Experts
Earn $125.00 Up A Month

Send For My Big Free Book Today

I have prepared a seventy-two-page book, describing my million-dollar school, telling about the SWEENEY SYSTEM OF TRAINING and the opportunities you can find in the Gas Engine business. Send for it today. It is absolutely free. Read the worth while stories written by my former students. If you think you are up against it financially, read the story of George Stevens on page 50. Learn how a cow puncher became an automobile expert in six weeks. I will also be glad to send you the SWEENEY SCHOOL NEWS which is published for the benefit of Sweeney Students. It is the most wonderful school magazine published. It gives you a complete history of the tractor business, shows you views of the Sweeney Army School, and tells you how other boys made a success after leaving the Sweeney School. Don't lay this book down until you send for the 72-page book and the Sweeney News. Write to me personally.



Battery Experts
Earn $150.00 Up A Month



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Please send me your Free Illustrated Catalogue of the $1,000,000
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Can You Make Fondant?

Fondant is the basis of most of the homemade candies. It can be combined with all sorts of flavorings and colorings, nuts, raisins and candied fruits. To make it, put in a saucepan 2 cups of granulated sugar, ⅛ teaspoon of cream of tartar, ⅔ cup of water and mix thoroly. Heat to the boiling point and boil without stirring until the mixture will spin a fine hair from the point of a knife. If a thermometer is used it should register 238 degrees Fahrenheit. Remove from fire, let stand until cold, then beat until creamy and it begins to harden, turn onto a kneading board and knead until free from lumps and soft and velvety in texture, using confectioner's sugar to keep it from sticking to the hands and board. Put in a bowl, cover with a plate and place in a cold place for 24 hours. While the mixture is cooking crystals will stick to the side of the pan and these should be washed off. Maple fondant is made in the same way using half maple and half white sugar.

Chocolate Creams—Make fondant in the shape of cones. Melt 2 ounces of chocolate in a double boiler, add a very small amount of cocoa butter, put the creams on toothpicks and dip them one at a time into the melted chocolate which should not be too hot. Cover them on all sides and place on waxed paper to harden.

Cream Wafers—Melt some of the fondant in a double boiler, add a few drops of oil of peppermint and any coloring matter desired and drop from the tip of a spoon onto waxed paper. Clove, cinnamon, orange or lemon may be used in place of the peppermint.

Stuffed Dates—Remove the seeds and fill with fondant, letting the fondant project slightly. Insert a walnut or pecan meat in the fondant and roll in granulated sugar.

Christmas Wafers—Cut candied cherries and candied citron or orange peel, one-third of each, into small pieces, and work them into twice as much fondant. Shape into a small loaf and cut in very thin slices.

Fondant Fruits—Preserved cherries, canned seeded grapes or canned pineapple which has been well drained may be used. Fill a shallow pan with cornstarch to the depth of about 1 inch and with a thimble or the end of a rounded stick make cavities in the starch. Melt some fondant in a double boiler and dip in the fruit, one piece at a time. Drop into the cornstarch cavities, let stand over night in a cool place, then dip in chocolate the same as chocolate creams. Mrs. A. E. Thurber.

Co-operate with the Teacher

The position of a school teacher in a country district is not always a pleasant one. Sometimes this is the fault of the teacher, but more often the women and the girls of the community are so interested in their own affairs that they neglect the new teacher who has come among them. They think, perhaps, she will have no time to take part in neighborhood activities. While, if they only knew it, she is eager to mingle with and be one of them. Do you wonder that these poor little schoolma'ams, used to having friends, become weary of the school room and country life, and long to be back in their own home, where they can "feel natural again," as one of them expressed it?

There are many little things school patrons might do to make the teacher feel at home and happy, and if she is happy her work will be benefited by enthusiasm. An invitation from some of the children's parents asking the teacher to take supper in their home may be the means of bringing about a pleasant friendship for both parties, to say nothing of the enjoyment the children realize in entertaining their beloved "Miss Brown."

Visit the school room. You will find you will really enjoy the time spent in watching your children at work. You might take a potted plant to the teacher, too. All teachers love flowers. It will make her feel someone is taking an interest in her work. Speak in praise of any especially good work. Words cost little, but mean much.

Invite the schoolma'am to join the club in your community. Even if it is impossible for her to attend, she will appreciate the invitation.

If anything goes wrong at school do not condemn the teacher just because Johnnie and Susie tell you she was entirely to blame. Remember children often see thru colored glasses. See the teacher personally.

And do not speak disparagingly of a teacher in the hearing of any of her pupils, even if she is not what she should be.

Try co-operating with that little teacher this year, and see if you will not have a better school.

A Rural Teacher.
Leavenworth County, Kansas.

Making Soap of 'Possum Fat

BY MRS. DORA L. THOMPSON
Jefferson County

The happiest boys in Kansas were our 5 and 8-year-old lads when they found a 'possum in one of their traps. They brought him up, trap and all, and he was evidently in too much misery to play his favorite game. Beneath his hide there was a layer of fat. There was not the least trace of a strong odor connected with him so we decided we would try the southern colored folks' favorite dish. We soaked him in salt water awhile and then placed him in the steam baker. Two hours later, it was impossible to get the meat from the pan in large pieces. This was probably due in part to the fat that seemed to be in layers thru all the flesh. The lean meat was tender and rich, too rich to suit most tastes. It reminded us of a 100-pound pig we once killed. He was his mother's only pig and grew to the 100-pound size in a very short time. His flesh was tender and rich like the 'possum's.

We have learned since that in many instances the 'possum has a strong taste unless it is first parboiled. Some tell us they usually place the meat in a brine for a week, then parboil it to remove the salt as well as the disagreeable flavor.

There must have been nearly a pint of grease in the fat we rendered out. This was poured into the jar that we use for soap fats. If the fat of skunks is properly removed and rendered there is no skunky smell connected with it. There are many trappers in farm homes now. Their "catch" would probably supply enough fat, if saved, to keep the family in laundry soap.

The first light weight butchering has been done in this neighborhood. As a rule the heavy hogs that supply the summer meat are butchered in January or February. Butchering in February makes it possible to remove the meat from the cure when it is cured and smoke it with comfort. One farmer nearby has already killed the eight hogs he thought were needed for his family's use. He used sacks of table salt in rubbing the pieces for curing. He says that he always removes all bones and by using fine salt in all bone openings, he has not lost any meat.

One of our canning club members provided the sausage and kraut that were used in our meat canning demonstration. The sausage was in the clearest casing we had ever noticed. We learned, upon inquiry, that she had cleaned these casings herself. To hear her describe the work one would think it was merely a case of presto-change and the casings would be clean and ready for use. "Of course," she says, "you have not fed your hog for a day before you butcher and the intestines are about empty. Push your thumb and finger along them and press out whatever waste they may contain. Then plunge them up and down in water and press that thru. The casings should then be laid on a smooth board and scraped, on the right side, with a smooth, dull-edged case knife. They will then be clear and transparent. Put them in salt water until you are ready to force the sausage into them. It's only a few minutes' work."

Our cans of beef seemed to melt away this last summer. The cook had too much watering of stock to manage to have time for dressing spring chickens. In getting a hurried dinner, a can of beef is a big help. Our supply has become so small that we have decided to supplement it with a calf that has been running on the wheat field. In addition he has been fed grain and milk. He has made a remarkable growth and probably weighs about 450 pounds. We shall can the beef much as we described canning chicken. The roasted pieces with the gravy added have been most enjoyed. Those cans that had a piece of fat meat in them had the means at hand for refrying the contents of the can. As with chicken, it is possible to put the raw meat into the can, add salt and water, and boil for 4 or 4½ hours. Many northern women do no other way. This makes boiled beef of all and is not the method advised by our state club leader. He advises preliminary cooking for all. One advantage in preliminary cooking is the fact that the shrinkage takes place outside the can.

A Healthy Child is Happy

The weighing and measuring test conducted by the U. S. Department of Labor and the Woman's Committee of the Council of National Defense revealed to many parents the fact that their children were suffering from hitherto undiscovered defects of the sort liable to cause much trouble in the future. A child may have faulty teeth, weak eyes, defective ears or adenoids without being actually ill. Yet such defects should be remedied in order to make sure that he may, in the future, be able to live and work efficiently and happily. Attention to the child's health in general is so necessary to his future well-being that parents should regard it as a grave responsibility to keep him in good condition.

A healthy child is happy; he has bright eyes, an expression of wide-awake enthusiasm; he is alert, eager for play and full of laughter. His posture is erect and upstanding; his skin is clear and smooth; his hair is abundant and glossy; his sleep is immediate and dreamless; and he is genuinely hungry at least three times a day. If a child manifests the opposite of these characteristics in a marked degree for considerable periods of time, there is very likely something not quite right in his daily care. The following health rules may help some mothers whose children seem not to be quite up to the mark in their general condition.

1. The growing child must have plenty of sleep. Up to 6 years he should sleep half the time—12 out of 24 hours. Part of this time may be included in the daytime nap.
2. His food should be plentiful and nutritious. Each child should have at least 3 pints of milk a day. Part of this may be in some other food, such as custard or ice cream. He should also have limited quantities of meat and plenty of eggs, cereals, vegetables and fruits.
3. He should have plenty of out-of-door play—not too much work, nor too long continued.
4. His clothing should be sufficient for comfort, clean and simple.
5. He should have a daily bath or rub down and a cleansing bath with warm water and mild soap at least once a week and oftener if possible.
6. His bowels should move freely at least once a day. If they do not, his diet and exercise should be so regulated as to bring about that result.
7. He should be interested in life. Sullen, dull, or unhappy children are frequently suffering from the want of interest in life. Such a child should be watched to discover if possible what he does enjoy and where his natural interest lies; and it is then an easy task to stimulate his interest until his whole attitude is changed.
8. He should be taught simple lessons of personal hygiene; the use of individual towels, handkerchiefs, toilet articles; good care of teeth, nose, eyes, hands, and feet.
9. He should be taught to believe that to be healthy is one of the finest possible achievements in the world, and the most patriotic.

Cash Prizes for Best Letters of Experiences with Motor Trucks

The Farmers Mail and Breeze desires to have a number of letters from farmers giving their experience in using motor trucks on the farm. For the best letters we will give the following amounts in cash: First prize, $5—Second Prize, $3—Third prize, $2.

In your letter mention all the advantages you have found in using a motor truck, such as the saving of time and labor, cost of operation, cost of repairs, the ease with which hogs and other livestock may be transported, and anything else that you think would be of interest to a prospective purchaser of a motor truck. Just think of all the questions you would like to have answered if you were expecting to buy a motor truck, and then answer them as frankly and as briefly as possible. None of the letters should exceed 500 words in length. Remember the best material usually is put up in small packages. We also desire a number of good photographs showing motor trucks in action. All letters in this contest should be sent us by January 11. Address Farm Engineering Editor, The Farmers Mail and Breeze, Topeka, Kan.

Use Sirup with Cranberries

Cranberries may be prepared very successfully with sweeteners such as sorghum, cane or corn sirup. They may also be combined with other fruits which are sweet, such as apples, figs and raisins. Cranberries are a valuable food because of the iron and acid they contain and they should not be left out of the diet.

Cranberry Sauce—Inspect and wash 1 quart of cranberries. Prepare 1 cup of raisins, figs or cocoanut, cut in small pieces, add to the cranberries with 3 cups of water and ½ cup of sorghum or cane sirup, and cook until tender. Raisins, figs or cocoanut may be omitted if desired.

Cranberry Jelly—Cook 2 quarts of cranberries in 1 quart of water 20 minutes. Put thru a sieve. This amount should make about 1 quart of juice and pulp. Add 1 to 1½ cups of light sirup and cook about 10 minutes, or until it will give a jelly. Turn into molds.

Cranberry and Apple Pudding—Steam ¾ cup of rice until soft in a double boiler. Grease a pan and line it with cooked rice, reserving some for the top. Peel and core 3 large apples and cut 1 cup of cranberries in halves. Cut the apples into thin slices. Mix the two fruits together and fill the pan, putting a layer of fruit and then some sorghum or sirup. Use ¼ cup of sweetening altogether. Cover the top with a layer of rice. Put on a greased paper and steam for ½ to ¾ hour until the fruit is well cooked. Turn out onto a hot dish and serve with custard sauce made as follows: Mix 2 tablespoons of flour with ½ cup of cold water. Add 1 cup of cranberry juice, and ¾ cup of sirup and bring to a boil. Cook 5 minutes, stirring constantly. Add 1½ tablespoons of lemon juice. Serve hot.

Why Not a Reading Circle?

One of the things that should be in every home is good literature. We neighbors, here in the country, have a reading circle and exchange our magazines. Six of us women selected six magazines and then sent to one of the magazines to get their best club price on the six magazines. Each member paid one-sixth of the total cost and one magazine was sent to each home.

The six magazines are passed around each month, each member retaining her own magazine after all have read them. In this way we each get to read six magazines for the price of one. The magazines look pretty ragged and perhaps have lost their covers by the time they get around but they have served the purpose for which they were intended. Following are the names of the magazines we selected last year: Ladies' Home Journal, Woman's Home Companion, Pictorial Review, Modern Priscilla, American Boy and Mother's Magazine. This is our second year and we are well pleased with our plan. I hope some other readers will become interested and try it in their communities. Mrs. Laura King.
Neosho Co., Kansas.

Good Pocketbook Rolls

My family never tires of these pocketbook rolls. I make the yeast, using ½ yeast cake, right after dinner, then at night make it stiff and add 1 tablespoon of sugar, 1 heaping tablespoon of lard, a little salt, and 1 pint of new milk. Let rise over night, roll out thin in the morning, cut into strips, fold one end almost over the other, let rise and bake. Mrs. O. D. Whitney.
Shawnee Co., Kansas.

The sweetest rest rewards the worker who completes the task he did not wish to do.

Learn This Trade In 6 to 8 Weeks!

Get ready for good times! *Be an Automobile and Tractor Expert.* Draw a good salary as an operator or mechanic. Get into business for yourself. This trade offers the greatest openings and the best pay for skilled men in the peaceful years ahead. Read below how you can begin now!

THE return of peace promises the greatest business development the world has ever seen. It means good times for the trained man.

There are today five million automobiles in use in the United States and hundreds of thousands of trucks and tractors.

Everyone knows there will be many more motors of all kinds in use a few years from now than there are today. Good roads will increase their usefulness.

The salaries of skilled operators and mechanics in automobile and tractor work range now from $90 to $300 a month. The profits made by owners of automobile and garage businesses are of course far greater than these salaries.

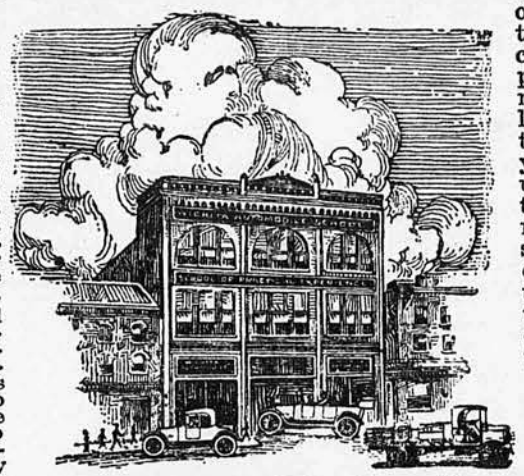
Plain reasoning will prove to anyone, then, that this is the coming business to know—the one that will offer the greatest number of positions and the best pay for skilled men. This will be the case permanently in the future. It is a condition that has come to stay.

If a man is not skilled in some trade or profession he is just a day laborer and must content himself for life with day-laborer's pay. No ambitious man will be contented thus. The good times ahead promise too well. Every man with energy and pride is determined to succeed—to make more money—to work less hours—to live well, and care well for those dependent upon him. This business will give you the opportunity!

On every hand great firms are planning extensive business activity. This activity in one way or another calls for the use of motor power.

Farming will be done altogether by tractors and gas engines. Trucks will be used to haul produce and grain to market. Practically every family will own an automobile. Commercial wagons will be motor driven. Local freight and express will follow paved highways on motor transports. Fast mail between large cities is already being carried by airplane.

Face the future as a skilled expert. That's your big chance to prosper. Considering the short time necessary for a complete course of motor instruction (6 to 8 weeks) there is no excuse for any man, young or old, who neglects his opportunity.



Main Office of the Wichita Automobile and Tractor School.

Get Your Start Here ! ! !

Now that peace is assured, all eyes are turned to the WICHITA AUTOMOBILE AND TRACTOR SCHOOL, the high-class trade school of the Southwest, where you can receive training that will make you an all around automobile and tractor expert. Within six or eight weeks of the day you enter my school you can become a capable automobile mechanic.

Earn $90 to $300 a Month

You don't need any previous experience with automobiles or tractors. You don't need to be a "natural born mechanic."

Most of my students come right straight from farms and small towns. Most of them at first can not even drive an automoilbe. The simple and complete training of the Bartlett practical system soon makes them absolute experts in

General Automobile Mechanics
Aviation Mechanics
Electrical Lighting and Starting Systems Oxy-Acetylene Welding
Lathe and Machine Work
Tire Vulcanizing Battery Work
Tractor Engineering
Automobile and Tractor Salesmanship. Garage Management

Learning Is Easy

My school is open to men of all ages. No examinations are necessary to enter. You do not have to be a high school or college graduate. Come just as you are. You will succeed. You need not know anything about automobiles or machinery. I will teach you by practical experience so thoroughly that you will never forget. The course of instruction is pleasant and interesting. I do not use books or charts. The Bartlett system is just plain, every day, practical experience with tools on all kinds of automobiles and tractors, including the new twelve cylinder airplane type motor. You learn by doing the work with your own hands under the direction of master mechanic instructors. You cannot receive the Bartlett training in any other school in the world.

Complete Instructions With Full Equipment

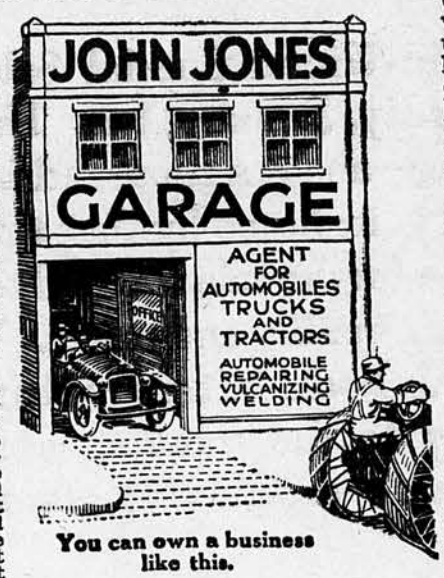
The large three story building occupied by the WICHITA AUTOMOBILE AND TRACTOR SCHOOL is filled from top to bottom with the latest and best equipment necessary for instruction in the automobile business. Here you will find motors from one cylinder up to the large twelve cylinder airplane type motor, lathes, reboring machines, welding plants, vulcanizing machines, etc. My instructors are all high class master mechanics. Bartlett trained men have a standing in the automobile world not exceeded by those of any other school.

In addition to this extensive school, my tractor farm nearby gives practical training to every student in the operation and repair of modern farm tractors.

My Graduates Succeed

The WICHITA AUTOMOBILE AND TRACTOR SCHOOL turns out graduates who know their business. These graduates learn by practical experience and step right out and go to work at their trade. My graduates are in demand because they can make good from the day they leave school. They are highly respected mechanics who have no difficulty in getting and holding good positions that pay well. Many of them are in business for themselves.

I prove all these facts by referring you to my graduates, of whom 95% are now out making good with the training received by the Bartlett system of practical instruction. Use the coupons and get my free booklet which tells how Bartlett trained men succeed, their names and addresses. Read the letters!



You can own a business like this.

No Books Used

My students do not use books or charts. The Bartlett system calls for plain, commonsense training, using tools and real automobiles and tractors with practical mechanics to show you every step of the way. You cannot forget the lessons you learn by doing things yourself with your own hands.

A Binding Guarantee

With each scholarship I guarantee absolutely to fit students for good paying positions. You can depend upon this. Stay until you are an expert mechanic. Your time is unlimited.

Y. M. C. A. Privileges Free

Every student here is entitled to full privileges in the Wichita Y. M. C. A. free. By coming here you have the free use of a gymnasium, a swimming pool, reading rooms, cheap restaurant, bowling alleys, lecture courses and daily association with the best men in the city.

No other school gives such an opportunity to learn a trade and improve leisure hours. Think, too, how safe a young man is in Wichita. Besides being a business center Wichita is also a CLEAN, MORAL CITY, WITH NO SALOONS, NO SUNDAY SHOWS, NO JOINTS, NO DIVES AND NO DANGEROUS RESORTS! Wichita is a school and church town.

Positions Obtained Free

My free employment bureau is open for students' use any time they need it. Just tell this bureau what kind of a position you want. My practical training has helped hundreds of other men to bigger pay, shorter hours of work, and a happier life. It will help you.

Expenses Are Low

Board and room in Wichita are not expensive on account of special arrangements made for our students. We locate men enrolled here in comfortable, home-like places where they can live for $5.00 to $6.00 a week. A scholarship in the Wichita Automobile and Tractor School is good for life. Even after you graduate you can return any time without extra charge if you want further instruction. Higher costs of material will force me to raise my tuition price again in the near future. However, I will enroll men for a while yet at my present rate, which is much less than that of similar schools.

Success Is Certain

Take advantage of this condition. BE an automobile, truck, and tractor expert. Your success will be certain. SKILLED MEN ARE WORTH MORE. The masters of the automobile business are getting BIG PAY. Their trade will continue to demand their services as long as they live wherever they are.

Mail Coupon Today

You can save quite a little money by sending in the coupon below at once. It will insure your obtaining my present low rate, if you decide to come, and it will also entitle you to my big free book which explains everything and contains interesting pictures of students at work in the school. I will also write you a personal letter outlining the work here and pointing out many attractive features which cannot be described in a small space. Just fill in and mail the coupon now while you think about it.

This simple act may be the turning point in your life toward a happier and more prosperous future. Do it TODAY.

COUPON GOOD FOR FREE BOOK

D. T. Bartlett, President,
Wichita Automobile and Tractor School,
102 N. Topeka Ave., Wichita, Kans.

Without obligation on my part, send me your FREE Book, entitled "The Way to a Better Job," and reserve for me the present low tuition rate, in case I decide to enroll.

NAME .....

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Farm Meet to Discuss Taxation

BY J. C. MOHLER
Secretary State Board of Agriculture.

"Kansas has no taxation system. We have a hodgepodge way of raising money and that is all. We know we must have so much money and we simply go out and hold the public up for it, with little or no regard for uniform and equitable assessment." So said a long time Kansan the other day.

A discussion of this matter of equitable taxation is one that is going to form a prominent feature of the forthcoming state agricultural convention held under the auspices of the board of agriculture at Topeka, January 8-10, next.

Judge Samuel T. Howe, chairman of the state tax commission and former president and present member of the Executive Committee of the National Tax Association, will make an address at this convention on needed taxation reforms. Judge Howe is recognized as one of the country's foremost authorities on this intricate question, and his address will deal with facts which we must sooner or later face and deal with if improvement is to be brought about.

Kansas' present taxation methods are a great impediment to progress and upbuilding and it is high time that steps are taken that will give Kansas a real taxation system instead of the hodgepodge that we now have. Such a system would have a greater influence in developing our agricultural resources and solving the tenant problem than perhaps any other one thing.

Prominent speakers on various subjects have been engaged for the convention. The program this year will give much attention to livestock problems. Deficiencies in crop productions can, under normal conditions, be made good in a season, but it requires years to develop and build up the livestock industry. The demands of the country and the world for meat and milk are so pressing that this is a most opportune time to take up livestock matters. Frank D. Tomson, Editor, The Shorthorn in America, will make an address on "Standards and Permanency in the Beef Making Industry," and "Sweet Clover and Cattle Raising" will be discussed by Frank Coverdale, the pioneer Sweet clover advocate, of Delmar, Iowa.

The horse industry which has been at a rather low ebb will be dwelt upon by Wayne Dinsmore, secretary of the Percheron Horse Society of America, and Dr. D. F. Luckey, state veterinarian of Missouri, will show the splendid results in the conservation of livestock thru measures of regulation and control with respect to the various diseases.

At the evening session of Thursday, January 9, General Leonard Wood will make an address on "Arms and Agriculture" and Mrs. Virginia C. Meredith, of Indiana, will speak on "The Privileged Woman." Mrs. Meredith is one of the most successful as well as interesting of nationally known farm women ever introduced to a Kansas audience. She has been president of the Indiana Home Economics Association; is owner of Oaklawn Farm and has scored big successes in the show ring and auction sales of pedigreed Shorthorns. Mrs. Meredith is a woman with a practical and delightful message, as readers of a foremost livestock journal, to which she contributes, well know.

Dairying, the silo, the sorghums and other subjects will be treated by eminent authorities of which mention will be made in later announcements. Farmers and stockmen of Kansas especially and the public generally, are urgently invited to attend this convention. It will be an agricultural conference to deal with a peace instead of a war program, and questions of readjustment to a peace basis with respect to the future welfare of agriculture will be thoroughly threshed out. Producers owe it to themselves and to the country to participate and help shape plans of a practical nature that will meet the changed conditions. There are few, if any, farmers and stockmen who can afford to miss this convention, and a large number is expected to attend and participate in its deliberations.

To Customers of Montgomery Ward & Co.

The Mid-Winter Special Sale by Mail for 1919 begins Wednesday, January 1st. The 120-page book of special bargains—about a thousand in number—should be delivered in your home by that time. In the selection of merchandise for the sale we tried to be particularly careful both regarding quality and prices. We knew it would have to be a bargain book, but more than that, the goods must come up fully to the standing agreement we have with our customers—*satisfaction guaranteed or your money back.*

Purchases for this sale were made long in advance, and in every case we have given the customer the benefit we were able to derive from our buying early in large quantities.

It was the plan to have every one of our customers receive this Sale Book. However, the United States Government, through the War Industries Board asked for curtailment in the use of paper, and to meet with that regulation we have been compelled to limit the number of Sale Books issued.

Here and there may be cases where some of our customers do not receive this January-February Sale List. We have reserved some to send to such of our friends as may not have received their copy and are writing us for one. Of course, we shall be very glad to send you one at your address immediately under those circumstances, if you will kindly write as early as possible so that your request reaches us before they are exhausted. Meanwhile, don't wait; get at these bargains as early as possible. If your book has not arrived, do not hesitate to ask your neighbors for theirs; this Special Sale is so full of bargains that we do not want any one who has dealt with us to miss it.

All lines are included, from ladies' coats and dry goods, groceries, furniture, and household equipment, to gasoline engines and farm machinery.

Montgomery Ward & Co.
Satisfaction Guaranteed or Your Money Back

Chicago Kansas City Fort Worth Portland, Ore.

Please Write the House Nearest You

Capper Back in New Role

Back in 1892, when Kansas was excited over its Populist delegation in Congress, a Topeka newspaper decided to splurge a bit and dispatched one of its men to Washington as a special correspondent. That correspondent went with insistent instructions to keep his eye on Congressman Simpson of hosiery memory.

Last Wednesday the former reporter, who, 26 years ago sat in the press gallery to watch Jerry Simpson, reappeared in the same gallery and introduced himself as Arthur Capper, now United States Senator-elect from Kansas and publisher of the newspaper he represented in Washington a quarter of a century ago.

But from the floor of the House had disappeared not only Jerry Simpson but all the Congressmen who sat with him. Even Joe Cannon missed that session, thru a defeat in 1890.

In the Senate where Capper will take his seat after March 4 only Senator Warren w s serving back in the forgotten days when the new Kansas Senator was a Washington correspondent. Henry Cabot Lodge was still representative from Massachusetts and Boies Penrose had not emerged from the Pennsylvania state senate. In the House, William Jennings Bryan developed as a Congressional orator and Capper heard his first speech.—Kansas City Weekly Star.

Feed for Hogs

The last crop of alfalfa has certainly made a fine fall pasture for the horses. It grew up to a good height but would have been too short to catch with the rake so it was left in the field. Alfalfa is the ideal pasture for horses and mules the year round, not forgetting the hogs of course. With the cows on the wheat and the horses on the alfalfa I have fed less feed than any fall yet, and I am thankful for that as the severe drouth cut down my supply at least 25 per cent of what it was in other years.

It takes considerable time and expense to keep feed for the hogs. Until cold weather sets in I feed them soaked oats and shorts, but now shorts are a very scarce article so I am feeding them corn and ground barley slop and also the slop from the house. The barley chops are around $3.25 a hundred here so that makes pretty high feed but they seem to like it. I had them vaccinated the first part of November and it turned off damp resulting in a severe set back for them, but they are coming out of it in good condition.

D. M. Hessenfield.
Belleville, Kan.

Plan to increase the poultry production. It will pay you to do so.

KANSAS STATE AG... FEB 4 1919 LIBRARY

Stockyards and Packing Houses

"The matter of the supervision of stock yards and packing houses," says the Department of Agriculture, "presents a problem about which there has been much discussion. The restoration and maintenance of conditions which will justify confidence in the livestock markets and the meat packing industry is the greatest single need in the present meat situation in the United States. As you know, the U. S. Department of Agriculture at the direction of the President, is now administering under license the control of the stock yards and related industries. The important results already accomplished under this authority clearly demonstrate its usefulness and emphasize the desirability of continuing it or some other adequate form of supervision.

"The question also of exercising similar authority over the slaughtering, meat packing and related interests is one for serious consideration. The Food Administration has placed limitations on profits on meat and by-products handled by these establishments and has required the installation of uniform accounting systems. In this way the centralization of control by a small group of packers has been materially checked. The economic welfare of meat production and distribution would be promoted by the continuation and development in some form of the supervision over the packing industry. Such control, of course, should be closely coordinated with that of the livestock markets, and there should also be established a central office to which packing concerns should be required to report currently in such form and detail that it would be constantly informed concerning their operations. The necessary legislation should be enacted at the earliest possible moment.

"The situation apparently requires three remedies, namely, regulation, information, and voluntary co-operation. Federal regulation, organized and administered as indicated and exercised in close harmony with the regulatory bodies of the various states, is the most essential feature. Constant publicity, under government direction, of current market prices, supplies, movement, and other conditions pertaining to the marketing of livestock, meats and animal by-products would materially increase its effectiveness. It would also be a means of stabilizing the marketing of livestock and its products and of making available the information required by producers and distributors in the marketing of their products. A beginning already has been made in the creation of machinery for such service at market centers and legislative authority for its further development should be continued and extended. Furthermore, better organization of livestock producers and closer co-operation between their organizations and those representing the different classes of intermediaries, working in harmony with appropriate government agencies, would also add to the effectiveness of regulation and would be beneficial to the packers and distributors as well as to the producers and consumers."

Hog Cholera Losses in Kansas

Losses of hogs from cholera in Kansas in the year ending March 1, 1918, amounted to 41,712 head, or 5,524 greater than in the year preceding. The losses from all diseases is increased too, over the preceding year, making a total loss of 74,018 swine from disease in the 12 months.

Returns of assessors to the State Board of Agriculture show that there have been more deaths from cholera in the eastern third of the state than in other sections, the losses having been much greater in the northeastern corner than elsewhere. The counties touched by or north of the Kansas River sustained the largest losses, aggregating about 43 per cent of the state's total; Nemaha, Jackson, Doniphan, Brown and Leavenworth counties reporting deaths from this disease of 4,435, 3,323, 2,574, 1,885 and 1,772 respectively. Eight counties in the western third of the state report no losses from cholera.

In the year ending March 1, 1917, Butler county reported, 2,644 hogs lost from cholera while this year but 1,503 are listed; Smith county 1,819 a year ago compared with 480 this year, Jewell county 1,703 compared with 699, and Washington 1,649 compared with 560 in the year ending March first last.

Only 5.4 per cent of the hogs which were on hand March 1, 1917 died of disease (all kinds) during the succeeding year compared with 21.5 per cent during 1914 and 19.6 per cent in 1911. A record such as shown by these statistics gives promise of better things to come if steps are taken to make quarantine regulations more stringent and vaccination compulsory when herds are known to be exposed to this dread disease.

Much headway has already been made in demonstrating that hog cholera may be held in check, if not wholly eradicated, thru the intelligent administration of control measures. This experience suggests the wisdom of extending the application of such measures as are found most efficient, in order that the fight against this disease may be waged successfully in all portions of the state.

With the prices of hogs as they are at present and when the death of an animal means a financial loss to its owner of from $15 to $35, the Kansas farmer is especially interested in seeing that the best practices in the prevention of disease are employed on his farm and the farms surrounding him.

Make the Most of Manure

(Continued from Page 18.)

or more acres, where 20 to 40 animals are housed, it averages about 40 cents a day to move manure from stalls to storage. Those who have compared the work of barn cleaning with and without a litter carrier know that the use of such a machine practically halves the work. This means that in a year's time the saving of labor compensates for the cost of the equipment."

Another way in which the net return from manure can be increased is thru the use of a spreader. The spreader distributes the material far more evenly than can be accomplished by hand. Coarse manure can thus be plowed under with greater ease and its productive value much increased. Furthermore, the use of a manure spreader economizes both man and horse labor.

It usually is a matter of economy to handle manure only once. If possible when taken from the stable or feeding shed it should be loaded at once on the manure spreader and hauled to the field. However, inclement weather, heavy rains and snows and other things often make this plan impracticable despite the economy it might insure. Under such circumstances the manure should be kept in a shed or manure pit built of concrete where it will be protected from leaching and waste. Then when the field is ready for the application of the manure and other conditions are favorable the farmer can drive up to the shed or the pit, load the spreader, and haul the manure to the field where it is needed.

Fish sausage is being manufactured in Sweden. Early in September its retail price in Helsingborg ranged from 55 to 63 cents a pound.



From Photo Copyright Committee on Public Information—From Underwood & Underwood, New York

Feeding America's Fighting Men

IF your boy or your neighbor's boy is serving Uncle Sam, he is being fed the best food in the world. Only the heaviest quality steers that come into the Armour plants are reserved for Government provisioning. They must be the finest beef-animals obtainable. The choicest corn-fed hogs go into Army and Navy bacon. And every ounce of this food receives triple inspection—first, by Armour's own inspectors; second, by Federal experts; third, by special inspectors from the Army itself.

Meeting the Nation's Needs

America has the best-fed army and navy in the world, because *you,* as a live stock grower, produced the type of animals needed, and because concerns like Armour and Company were equipped to deliver to the Government the vast quantities of meat required without delay.

Instead of the confusion which must have resulted in issuing requisitions here, there and everywhere, the War Department was able to take advantage of the system and organization of Armour and other large concerns, and the needs were filled instantly.

One-Third of Armour's Output

For a considerable period Armour and Company have been shipping over a hundred carloads of meat a day to the army, or virtually 75 million pounds of meat a month. In one order, Armour's refinery department supplied the Government with two million pounds of lard.

Today, approximately one-third of all the Armour output—one-third of all the Armour activities—are devoted to serving the Government. No matter how great the future food demands of our Army and Navy, they will be met through the whole-hearted co-operation of the producers of this country, working hand in hand with the packing industries, with one common end in veiw.

Armour's QUALITY PRODUCTS

This is the Mark Under Which Your Best Products Reach the Consumer

ARMOUR AND COMPANY
CHICAGO

2701

OUR national agricultural system has evolved the County Agent, whose duty is to assist the farmer in getting reliable farm information from all possible sources and applying to local conditions; and to demonstrate the value of science when applied to farming. The work of these agents is a rapidly growing factor in the development of our agriculture, and Armour and Company have pleasure in endorsing this national movement. They may feel free to use the facilities of this Company for securing information on marketing and market problems.

Co-operative Associations

BY R. W. KISER

In the past few months a great need for organized effort among the breeders of livestock has become apparent. With the demand for more food stuffs and especially meats, there has come a demand for a better class of livestock. With this demand for a better class of livestock, problems of purchasing breeding stock, markets for surplus, distribution, supply and demand arise. In every community where there is a plentiful supply of livestock, these become community if not county-wide problems. Some plan whereby these problems can be handled by the breeders themselves should be devised in every county or community.

The co-operative livestock association is, perhaps, the best channel thru which the general problems of the breeder can be solved. Such an association may be formed so as to serve one or more communities or it may be a county organization. In most cases co-operative associations should be county wide as the number of people served is too small where only a community is represented.

The organization should be formed in such manner that it will embody rules to solve the problems of breeders of all classes of livestock. To form such an organization, a county wide meeting of all of the breeders of livestock should be called. At this meeting all plans for the future should be discussed and a permanent organization formed. A president, vice president and secretary-treasurer elected and such committees as are needed to carry out the plans, appointed. A committee should be appointed to draft a constitution. A second meeting should be called within a very short time and the constitution adopted. Permanent committees appointed, and the work of solving the most pressing problems should be begun at once.

Locating and buying good breeding animals at reasonable prices is one of the problems which needs attention. Where breeding animals can be bought in carload lots, cheaper prices may often be had and a great deal is saved in shipping charges. In several counties shipments of dairy cattle have been made from Northern states where a big saving was made on the original price of the cattle as well as on the shipping charges. This same plan may be used in buying beef cattle or hogs.

Many counties have at the present time a surplus of young breeding stock. These are usually owned by small breeders who have only small herds and cannot afford to advertise in the breeders' journals nor can they afford to make a private sale in order to dispose of their stuff. Thru an association all surplus livestock can be advertised cheaply and many mail order sales will be made where otherwise this good breeding stock would have to be shipped to market for lack of a buyer. Public sales by the association afford an opportunity for the small breeder to dispose of his surplus at prices equal to those received by the large breeder.

In counties where county farm bureaus already are organized and operating, a good opportunity is afforded the livestock breeder to dispose of surplus or to buy at reasonable prices simply by making use of this organization already in existence and which is broad enough to handle any county wide problem. Co-operation is the one big factor which makes for success in any enterprise. If a separate organization is formed to care for the problems of those who are operating along some one line of endeavor, such an organization should co-operate to the fullest extent with the county farm bureau which is equipped to handle the problems which confront all classes of farmers.

Plenty of roughness saves grain.

Mid-West Thresher-Tractor Show

BY A. B. HUNTER

With the appeal to America for food to feed not only her own people, but also our allies, neutrals, and even our enemies, and the high prices that will probably continue for the next few years for farm products and farm machinery that makes for both extensive and intensive farming, there is sure to be a tremendous demand for all these things this year.

The eighteenth annual Mid-West Thresher-Tractor show will be held at Wichita, Kan., February 11-15 and will be the greatest demonstration of tractors and threshers and accessories ever brought together at any one place. More than 40 large concerns already have engaged floor space. This great exhibition will be held in the Wichita Forum provided free of charge by Wichita for that occasion. This building has a frontage of more than 500 feet and has more than two acres of floor space.

This will make a week of education in farm power machinery that thousands of farmers in every part of the Southwest cannot afford to miss. The dawn of a new era in agriculture has arrived and the man who does not apply modern means to his farming endeavors will soon be left as far behind the times as the man who is still farming with the single shovel or the ox-team.

Kansas City Tractor Show

The growth of the tractor industry has been remarkable. In 1912, there were only 11,000 tractors manufactured in the United States. By 1918 the total output approximates 100,000. It is predicted that in 1920, over 300,000 tractors will be in use in America. The potential market in this country exceeds 1¼ million tractors. By this is meant, that there are farms in the United States, which can be far better and more quickly worked, with less labor and greater returns, with tractors than without. The number of tractors to meet this demand would total $1,250,000, not including replacements. Of course this staggering figure does not include the demands of Europe, or Asia, of Africa or of South America.

The tractor show for 1919 will be truly representative of the bigness and greatness of the tractor industry. The Tractor Building will be erected on the Union Station Plaza convenient to the station. This building, for which the plans have been approved and the contract awarded, will be steam heated and lighted by electricity, with unusual accommodations for both exhibitors and the visiting public. Thruout the great West and Southwest, the tractor country of America of which Kansas City is the commercial metropolis, farmers are waiting for the Fourth Annual National Tractor Show before deciding just which tractor they will buy.

Gov. Allen Without Strings

One of the interesting experiments in American politics, says the St. Louis Post Dispatch, will begin when Henry J. Allen takes up his duties as governor of Kansas. Allen was nominated and elected to this office without a personal word from him as to his policies and no one at any time pretended to have any authority to speak for him.

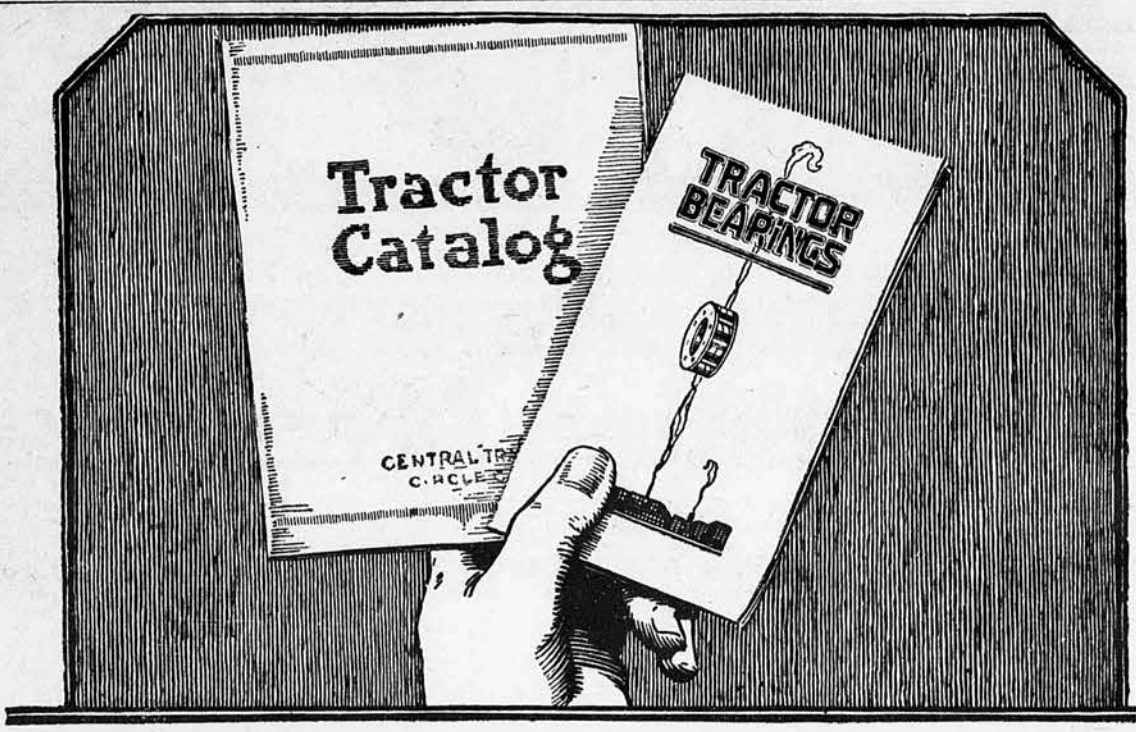
About the time of the announcements of candidates for the primaries, Allen departed for France on his second errand for the Red Cross. Later he entered the Y. M. C. A. service and during October, when the campaign was interesting, he was with the Missouri troops at the front. When notified by a correspondent on his return from the Verdun front that he had been elected, Allen sent his thanks to the people. As to his work as governor, he indicated only two policies—a revision of the tax laws and an effort to change entirely the form of state and county governments. He said that he thought that these changes would be necessary in the readjustment to follow the war and to pay its bills.

Kansas Counties With Tractors

The 5,414 tractors in Kansas have been made to do their part in full measure in winning the war, and they have been driven hard without mercy. Their increased numbers and efficient use not only contributed to increased crop areas, but to an important degree made good the serious shortage of farm labor resulting from the war's inroads on the state's man-power. The tractor has a wide adaptability under Kansas conditions, and in the hands of competent operators is proving a benefaction in our agriculture.

The table below gives by counties the number of tractors in use on the farms of Kansas, March 1, of this year:

County—	1918.	County—	1918.
Allen	32	Linn	15
Anderson	41	Logan	17
Atchison	31	Lyon	46
Barber	60	Marion	110
Barton	137	Marshall	39
Bourbon	12	McPherson	182
Brown	35	Meade	66
Butler	44	Miami	41
Chase	13	Mitchell	46
Chautauqua	14	Montgomery	61
Cherokee	51	Morris	34
Cheyenne	52	Morton	21
Clark	33	Nemaha	30
Clay	43	Neosho	38
Cloud	62	Ness	58
Coffey	50	Norton	17
Comanche	51	Osage	47
Cowley	70	Osborne	84
Crawford	38	Ottawa	57
Decatur	28	Pawnee	179
Dickinson	135	Phillips	34
Doniphan	20	Pottawatomie	59
Douglas	54	Pratt	84
Edwards	59	Rawlins	47
Elk	22	Reno	198
Ellis	103	Republic	46
Ellsworth	43	Rice	59
Finney	21	Riley	41
Ford	125	Rooks	70
Franklin	31	Rush	111
Geary	27	Russell	60
Gove	36	Saline	87
Graham	19	Scott	25
Grant	3	Sedgwick	115
Gray	60	Seward	29
Greeley	10	Shawnee	35
Greenwood	26	Sheridan	39
Hamilton	15	Sherman	26
Harper	62	Smith	34
Harvey	142	Stafford	53
Haskell	17	Stanton	9
Hodgeman	39	Stevens	21
Jackson	40	Sumner	162
Jefferson	38	Thomas	85
Jewell	28	Trego	47
Johnson	55	Wabaunsee	63
Kearney	4	Wallace	11
Kingman	75	Washington	61
Kiowa	63	Wichita	4
Labette	64	Wilson	41
Lane	20	Woodson	15
Leavenworth	44	Wyandotte	6
Lincoln	53		



Send for BOTH Booklets

Send for both booklets—the booklet about bearings in addition to the catalog of the tractor you are interested in. The bearings in the tractor are its very foundation. They protect shafts and axles from wear and destruction; they add greatly to the life and dependability of the tractor; they save valuable time by doing away with the necessity for constant oiling; they eliminate friction and enable the tractor motor to deliver more power where you want it—at the drawbar and belt; they save fuel and make for cheaper cost of operation and upkeep.

By all means send for both booklets—get not only the catalog from the manufacturer of whatever tractor you may be interested in, but also the Hyatt booklet entitled "Tractor Bearings." Write to the

HYATT ROLLER BEARING COMPANY, TRACTOR BEARINGS DIVISION, Chicago, Ill.
Motor Bearings Division, Detroit, Mich. Industrial Bearings Division, New York City

HYATT
ROLLER BEARINGS

Store Farm Machinery Carefully

Wintering machinery out-of-doors is a very expensive method in any locality. Too many of our farmers leave the cultivators, plows, harvesters, wagons and other farm machinery where last in use. Such a practice is wasteful in the extreme. The machines depreciate more from exposure than from fair wear and tear and must be replaced long before it would have been necessary had proper care been given.

A shelter is required but it is not always necessary to construct a special building. Often a good place can be made in the barn or other buildings. If specially built, it should be inexpensive, protected against sun, wind and rain, and located in a convenient spot.

Economy of space in the implement shed is an important consideration and depends largely upon the arrangement of the machinery, which should be placed in the shed according to the time it will have to be used. The machinery that will be used late during the following season should be placed so that it will not be necessary to move it to get at that required early in the spring.

Before storing away for the season the machinery should be cleaned and thoroly oiled. Remove all dirt, wipe the entire machine with an oiled rag and grease all wearing parts with tallow or axle grease. Paint is by no means the least important factor in prolonging the usefulness of an implement. Painted machinery on the farm is an exception rather than a general rule. Few seem to realize that the chief utility of paint is in protecting materials rather than in improving appearance. Paint of good quality only should be used and the surface to be painted should be dry and clean before the paint is applied.

Every machine will sooner or later need repairs. These should be made as promptly as possible when farm work is not pressing. The observance of this rule will save much valuable time in going to some distant shop for repairs or in waiting for a new part of some machine or implement to come from the factory during the growing season.

W. L. Graham.

Railroads Cause Big Loss

Prospective loss to the government thru operation of railroads and guaranteeing fixed returns to the companies has been reduced to about 200 million dollars for the nine months period ending October 1, from approximately 500 million dollars, the threatened loss several months ago. This was indicated today by the interstate commerce commission's report that the net sum which the government will receive from operations of the leading railroads for the nine months is $518,656,000.

The share of the estimated 950 million dollars guaranteed return for the year due to the railroads from the government for this period is calculated at a little more than 700 million dollars, or nearly 200 million dollars more than the railroads earn for the government. For the nine months up to October 1, total railway revenues from leading roads amounted to $3,541,343,000, and operating expenses $2,861,753,000. Deductions of taxes left operating income of $539,549,000, of which $518,656,000 goes to the government railroad fund.

Fifth Liberty Loan

Secretary of the Treasury McAdoo has announced that, no matter what the results of the pending overtures for peace may be, there will be another Liberty Loan. To use his expression, "We are going to have to finance peace for a while just as we have had to finance war."

There are over 2 million United States soldiers abroad. If we transport these men back to the United States at the rate of 300,000 a month, it will be over half a year before they are all returned. Our army, therefore, must be maintained, victualed, and clothed for many months after peace is established.

The American people, therefore, having supported the Liberty Loan with a patriotism that future historians will love to extol, will have an opportunity to show the same patriotism in financing the just and conclusive victorious peace whenever it comes.

Not for a moment, however, is the Treasury acting on any assumption that peace is to come immediately. The motto of force against Germany without stint or limit will be acted up to until peace is an absolute accomplished fact.

One more Liberty Loan, at least, is certain. The fourth loan was popularly called the "Fighting Loan"; the next loan may be a fighting loan, too, or it may be a peace loan. Whatever the conditions, the loan must be prepared for and its success rendered certain and absolute. Begin now to prepare to support it.

How to Ship Furs

After your catch has been skinned and the pelts stretched and dried, the furs are ready for packing and shipment. Every skin, when placed in the bundle should lie perfectly flat and should be thoroly cleaned. One skin should not be placed inside another or it may be overlooked. In general, furs should not be folded or rolled for this destroys much of the good effect of the stretching.

Furs should be shipped either by express or by mail, never by freight. If shipped by express the furs should be packed securely in a burlap bag or sack and the sack tightly sewn up. The burlap allows the air to get thru and at the same time protects the furs fully. If sent by mail, the furs should be first wrapped in cloth and then in strong paper. The bundle should be fastened well; but not sewed up so that it is impossible for the postal authorities to inspect it if they wish, for then first class rates will be charged.

Every bundle or package should be carefully marked for shipment. The large fur firms offer trappers any number of their shipping tags free. The tags consist of outside and inside tags, on which the trapper writes his name and address. One tag should be placed on the outside of the bundle and the other on the inside. In this way, if the outside tag is torn off in transit, the trapper has still his name on the inside and his shipment will not be lost.

A few of the large fur houses not only buy furs but also sell complete lists of trappers' supplies. Arrangements are made so that the trapper may buy whatever supplies he may need with his actual fur shipment and is not then necessitated to send cash with his order. Trappers have found that the best fur houses to deal with are generally the largest concerns. They can pay trappers the highest prices because they have facilities for selling the furs at the highest prices. Moreover, their bigness does much to prove their reliability.

Oklahoma Crops

Oklahoma winter wheat acreage is placed by the federal bureau at 3,590,000 acres, as against 3,264,000 in 1917. Growing condition is given as 100 per cent for December.

Rye acreage this year is 10,000 as compared with 9,000 in 1917. The condition of this crop for December was 95 per cent of a normal.

Kansas Has Many Tenants

(Continued from Page 20.)

come farm owners should be settled on these lands. Governor Capper, J. C. Mohler, secretary of the Kansas state board of agriculture; and other state officials are trying to get Congress to include these lands in any purchases that may be authorized by appropriations made for that purpose. It is hoped that the new legislature of Kansas also will take early action and pass any measures needed to promote this project. Prompt action now will insure the settlement of Western Kansas with a desirable class of farmers and bring relief to many tenants who desire to purchase farms on long time loans at low rates of interest. Both the state and the nation must pass additional laws to improve farm credit and to make it easier for farmers to obtain the loans they need to carry on their farm enterprises in a successful way.

Champion
Dependable Spark Plugs



Champion Heavy Stone Price $1.25

Avoid Substitutes Look for "Champion" On the Porcelain

A VAST majority of car owners know from experience the wisdom of getting the Champion Spark Plug *especially* designed and recommended for *their* type of car.

For your protection, we suggest this caution—be sure the name "Champion" is *on the porcelain* as well as on the box. If it is not, you know it is not the genuine, dependable Champion Spark Plug.

Most dealers call your attention to the name "Champion" on the porcelain when they recommend this make of plug.

There is a Champion Spark Plug for *every* type of motor car, motor truck, tractor, motorcycle and stationary engine.

Champion Spark Plug Company, Toledo, Ohio

Why Restrictions Were Removed

In view of the large number of inquiries as to the reasons for the removal of restrictions upon the use of wheat flour the Food Administration has issued the following statement: "Since its inception the Food Administration's policy has been to adjust its conservation requests with conservation necessities and the public has shown its appreciation of this frankness by immediate response.

"Last spring the Food Administration was extremely anxious about the wheat shortage and the public was asked to restrict its consumption of wheat down to the barest necessity in order to meet the needs of the Allies. With a surplus of only 20 million bushels of wheat the American people, thru conservation, enabled the Food Administration to ship 141 million bushels of wheat. In spite of this conservation, when we reached the 1918 harvest there was less than a ten-day supply in America.

"When the new crop came in it proved to be very large but not too large to take care of the needs at that time. It was the desire of the Food Administration not to be caught another season with any shortage of this most valuable foodstuff, and with the idea that it was necessary not only to continue shipments of wheat to Europe but to build up a big reserve for the 1919 spring offensive the Food Administration continued to ask the people to use wheat sparingly.

"The signing of the armistice changed the situation with wheat immediately, just as it did with all measures taken with the needs of a continuing war in view. Wheat supplies in distant countries were made available by the cessation of the submarine menace, and the assurance of a good crop in 1919, undisturbed by war, relieved somewhat the necessity of building up as large a reserve as was anticipated. In other words, it is probable that our normal actual consumption of wheat, implying elimination of waste in which our people have been thoroly schooled, will be permissible and still allow us to keep the Food Administration's pledge in the shipping of great quantities of bread stuffs to hungry Europe.

"Last year's situation with fodder grains plentiful and wheat scarce has been entirely reversed and the necessity now points to a more careful use of the grains needed for animal feed and a freer use of wheat.

"It cannot be too strongly emphasized that even under present conditions no wheat must be wasted. It is a well known fact that a diet which includes little meat naturally increases the consumption of bread and at this time, when the shortage of meat is acute, it is good to know that an increased consumption of bread is not unpatriotic."

Feeds for Beef Cattle

BY R. W. KISER

With the present prices of roughages and concentrated feeds one of the biggest problems confronting the farmer and cattle breeder is that of providing a sufficient amount of the proper kinds of feeds which will carry his cattle thru the winter cheaply and at the same time supply the food value necessary to maintain their strength, vigor and normal flesh.

We have been very fortunate this year in that we have an abundance of excellent wheat pasture. This pasture no doubt gives the cheapest and most profitable feed one could obtain. The early and rapid growth of wheat which made wheat pasturing possible even if not necessary in some sections of the state, has become a boon for the man who has a number of cows and stock cattle to winter.

In many sections of the state very little roughage was available last fall on account of the drouth last summer. As a consequence many cattle would have been shipped to market and sold at a sacrifice. As it is these cattle were kept and grazed on wheat pasture. In most sections of the state a fairly good supply of rough feed is now on hand to feed thru the remainder of the winter.

As compared with other roughages, silage is no doubt the most profitable feed for wintering cattle. Those who have a silo full of feed are prepared to give their herds good care this winter while those who have to depend upon fodder and unsalable hay will no doubt find the feed inadequate for the requirements of the animals. Usually where dry feeds are fed following wheat pasture, there will be a large shrinkage as well as a general weakening in the entire herd. This is unprofitable herd management as a small calf crop will result and the number of calves with weak constitutions and lacking in size and vigor will be appreciably large. Where silage, which is a succulent feed, is fed following wheat pasture no great amount of shrink in weight or strength will be noticed. The cows will retain the flesh and strength gained while on pasture and a large, strong, vigorous calf crop will result.

It is not too late to build a silo and fill it with fodder out of the shock. Many silo owners fill twice in one year. The second filling is usually about Christmas time when labor is available. Water is added as the cut feed is blown into the silo to replace that moisture which is lost thru evaporation when the fodder is curing. This feed will give about as good results as silage cut when the plant is green.

In the western and central parts of the state the pasture grass was fairly good altho in a very dry condition. Many cattle were grazed on this grass and all did very well. A small amount of cotton cake should supplement this as the dry grass is not sufficient to maintain the strength of the animal. If dry feed such as fodder or grass is used it should be supplemented with cotton seed meal or cotton cake. A small amount of either will more than pay for itself in added strength and vitality in the animal. In this manner or by making use of corn stalk fields, cattle can be wintered cheaply and profitably.

Engineer for Irrigation

Special attention will now be given to irrigation work in the state of Kansas by J. B. Marcellus, engineer in charge of the department of drainage and irrigation, division of extension, Kansas State Agricultural college. This is possible thru the recent appointment of Ira E. Taylor as assistant engineer in this department who is to specialize on farm drainage. Mr. Marcellus has spent over seven years in Idaho, Washington, and Montana and is especially familiar with all phases of irrigation development.

Data concerning certain phases of irrigation in Western Kansas have been collected and statistics of a large number of pumping plants are available. A bulletin entitled: "Pumping for Irrigation with Special Reference to the Arkansas River Valley" is ready for distribution. Blue prints and plans of typical pumping plants are also available. A map giving the acreage now being irrigated by ditch or by pump, the acreage that can be irrigated by ditch or by pump, and the maximum, average, and minimum depths to water in all counties west of the 99th meridian is practically completed.

Prepare for the Ice Harvest

It's time to make final preparations for cutting ice. Get out the ice tools, the saws, tongs, and iron bar. Look them over carefully and see that they are in tip-top condition. Sharpen the saws and see that the handles are all right. Repoint the tongs and bar if they need it. Clean them up and be all ready to make the ice slivers fly when the ice is thick.

Did you ever try co-operation in ice harvesting? It works like a charm. Get one or two of your neighbors to go into such a scheme. One pond or stream and one set of tools will answer for all. It's just like a mid-winter picnic, for "many hands make light work."

Better make sure, also, that you have on hand plenty of dry, clean sawdust or whatever insulating material you are going to use. Wet sawdust is a poor insulator and wastes ice. How about it; is everything ready?

Butter-Makers Meet

At a conference of representatives of 50 butter manufacturing concerns, held at Kansas City last week for the primary purpose of discussing the Food Administration rulings and reaching a common interpretation, a resolution was adopted pledging the support of the manufacturers to the efforts of the Food Administration.

The representatives present were from Kansas, Nebraska, Oklahoma and Texas. State food administrators from Kansas and Nebraska attended the conference.

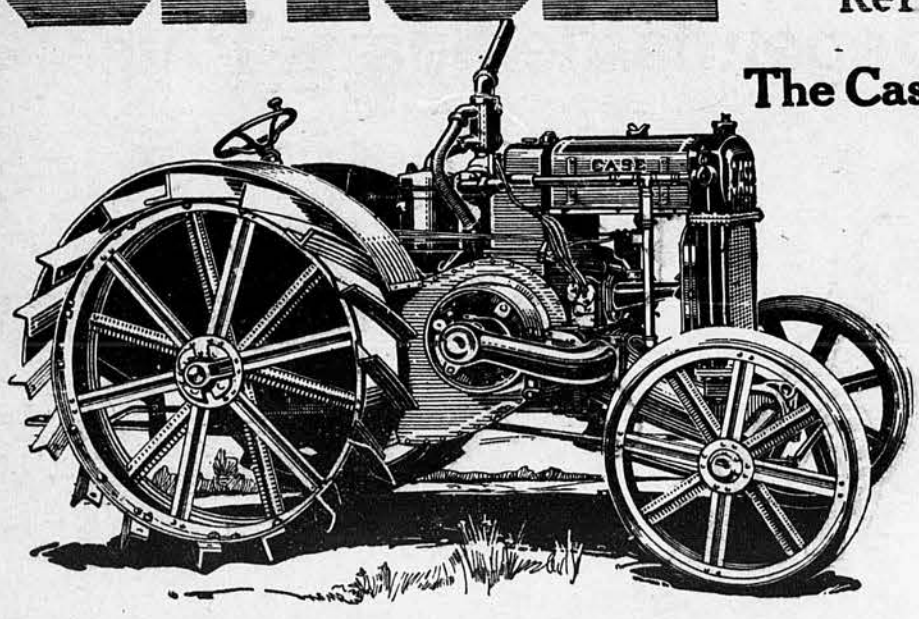
Send us photographs of your home, your barn, your silo, your best cow or horse. We will pay you for all those that we can use to advantage.

CASE

ANNOUNCES

A New 3 or 4 Plow Kerosene Tractor

The Case 15-27



Pulls 3 Plows in Hard Plowing—
4 Plows Under Favorable Conditions

Here is the latest Case Tractor—offered in our 77th year of experience in the production of power-farming machinery and 27th in the production of motor tractors.

No tractor is finer. And we know of no equal.

We feel certain that this Case 15-27 will receive instant recognition among knowing farmers everywhere.

No man can afford to judge tractors of this size—nor decide which is best—until he has studied this Case 15-27.

While rated at 15 horsepower on the drawbar, this Case 15-27 can deliver more than 18 horsepower.

While rated at 27 horsepower on the belt, it can deliver about 33 horsepower.

In fields where plowing is difficult—tough or baked soil, stiff grades, etc.—this tractor pulls 3 plows easily. Where conditions are favorable this tractor can pull 4 plows.

With reasonably good footing this tractor easily delivers a pull of 3,000 pounds at the drawbar. Its reserve power makes it possible to attain 3,600 pounds pull, or over.

Under variable soil and field conditions, the operator may take advantage of the two-speed transmission, using low speed (2¼ miles per hour) for hard pulls, and high speed (3½ miles per hour) for normal draft.

Your field conditions will determine whether you should use 3 or 4 plows, or whether you should pull 3 plows on low or high gear.

A complete illustrated and descriptive catalog of all Case Kerosene Tractors will be sent gladly, upon request.

(834)

Case Superiorities

1 Weighs about 5,600 pounds. Low and compact with short wheelbase. Turning radius 13¾ ft. Stays on all fours.

2 Rated 15 horsepower on the drawbar and 27 horsepower on the belt, which is only 80 per cent of its actual capacity.

3 Four-cylinder Case valve-in-head motor. Removable head. Motor is set crosswise on frame, affording use of all spur gears. This conserves power.

4 One-piece cast main frame, forming dustproof housing for rear axle, bull pinion shaft, transmission and the bearings for these parts. Also a base for motor. This construction brings rigidity and prevents disalignment.

5 Belt pulley mounted on the engine crank shaft. No gears used to drive it. Pulley is part of the tractor, not an extra-cost accessory.

6 All traction gears are cut steel, enclosed and running in oil. No bevel gears, chain, worm or friction drive parts.

7 Case Sylphon Thermostat controls cooling system and insures complete combustion of kerosene in the motor. Prevents raw fuel from passing by pistons and diluting oil in the crank case.

8 Case air washer delivers clean air to carburetor. No grit nor dust gets into cylinders to minimize their efficiency and shorten their life.

9 All interior motor parts lubricated by a combination pump and splash system. Speed governor, fan drive and magneto are dustproof and well oiled.

10 Hyatt Roller Bearings throughout. High tension ignition. Kingston carburetor. Radiator with a cast frame. Core, copper fin and tube; non-clogging type.

J. I. Case Threshing Machine Co., Inc. Founded 1842 1543 Erie St., Racine, Wis., U. S. A.

New State Butter Record

BY J. B. FITCH
Kansas State Agricultural College

The Ayrshire cow, Canary Bell 25748, owned by the Kansas State Agricultural college, Manhattan, Kan., completed a year's record on November 15, in which she produced 19863 pounds of milk and 744 pounds of butterfat when 10 years old. This increases her former record of 18404 pounds milk and 668 pounds of butterfat finished in 1917, which was the state record when made. Canary Bell's recent record replaces the present state record of 18377 pounds milk and 695 pounds butterfat, held by her stable mate, the Holstein cow, Maid Henry Pontiac, and also replaces the record of Maid Henry, who produced 19600 pounds milk and 715 pounds fat, which was the highest yearly record ever made in Kansas.

During the first month of her lactation she produced on a seven day official test 528.6 pounds milk and 23.9 pounds butterfat, equivalent to 29.8 pounds 80 per cent butter. This is the highest seven day fat record ever made in Kansas.

In addition to being a good individual and an excellent producer, Canary Bell has a daughter, Melrose Canary Bell 37838, which won the French cup for the highest record junior two year old Ayrshire in 1917, producing 13891 pounds milk and 505 pounds butterfat.

Canary Bell is sired by Albert Cork 11193 and out of the cow, Lady Fearnot 3rd 21770 and has been owned by the college since 1909. At the beginning of her record she weighed 1255 pounds and the day after finishing her record she weighed 1280 pounds. She is due to freshen again on January 18, 1919, having carried her calf 213 days during her record and having made her requirement in three months and seventeen days.

Allies Must Have More Food

The American people must break all records in food saving this winter and next spring and must cut down their portions of bread, meat and fats in addition to sugar if the allies are to be fully sustained, according to the official bulletin of the food administration, which was mailed today to all the county food administrators and their assistants in Kansas.

Allied needs for wheat and other cereals for the fiscal year ending July 1, are 3,600,000 tons in excess of last year, the bulletin says. Last year America shipped 6,800,000 tons of wheat and other cereals to the allies. Prior to the war the average shipments were 3,320,000 tons a year. This year we must ship 10,400,000 tons of breadstuffs, or more than three times normal peace time shipments.

Saving of meat and fats is equally as urgent, the bulletin shows. The average pre-war shipments of meats and fats including dairy products and vegetable oils was 645,000 tons a year. Last year we shipped 1,550,000 tons. This year we must ship 2,600,000 tons or 1,050,000 tons more than last year when we thought we were doing so well.

The allies are also short of feed grains, particularly army oats. In normal times we shipped 950,000 tons of feed grains yearly says the bulletin. Last year we shipped 1,950,000 tons and this year we must ship 2,700,000 tons, an increase of three quarters of a million tons over last year's record breaking effort.

A Letter to Farmers

During the period since we entered the war the farmers of the nation have responded magnificently to the appeals for increased production and all the people have complied with the urgent requests for fuller conservation. During this present fall season our farmers have planted an increased wheat acreage and a large acreage in rye. It is too early now to make detailed suggestions for the spring planting season. We do not know how the fall grains will come thru the winter, and we are not now able to forecast the demands and the conditions which will prevail after the first of the year.

This department, the agricultural colleges, and other organizations will continue to give definite thought to all the problems and, at the proper time, will lay the situation before you.

Two things seem to be clear: One is that, for a considerable period, the world will have need particularly of a larger supply than normal of livestock, and especially of fats. We should not fail, therefore, to adopt every feasible means of economically increasing our livestock products. As a part of our program, we should give due thought to obtaining an adequate supply of feedstuffs and to the eradication and control of all forms of animal disease.

The other is the need of perfecting the organization of our agricultural agencies for the purpose of intelligently executing such a program as may seem wise. We should not only have the best possible organization and co-operation of the Department of Agriculture, the agricultural colleges, the state departments of agriculture, and farmers' associations, but we should especially strengthen the local farm bureaus and other organizations which support so effectively the extension forces and assist them in their activities. The perfecting of this organization is highly desirable not only during the continuance of the present abnormal conditions but also for the future. The local as well as the state and Federal agencies are of supreme importance to the nation in all its activities designed to make rural life more profitable, healthful, and attractive, and, therefore, to obtain adequate economic production, efficient distribution and necessary conservation.

D. F. Houston.
Secretary of Agriculture.

Store Bees for Winter

BY J. H. MERRILL
State Apiarist

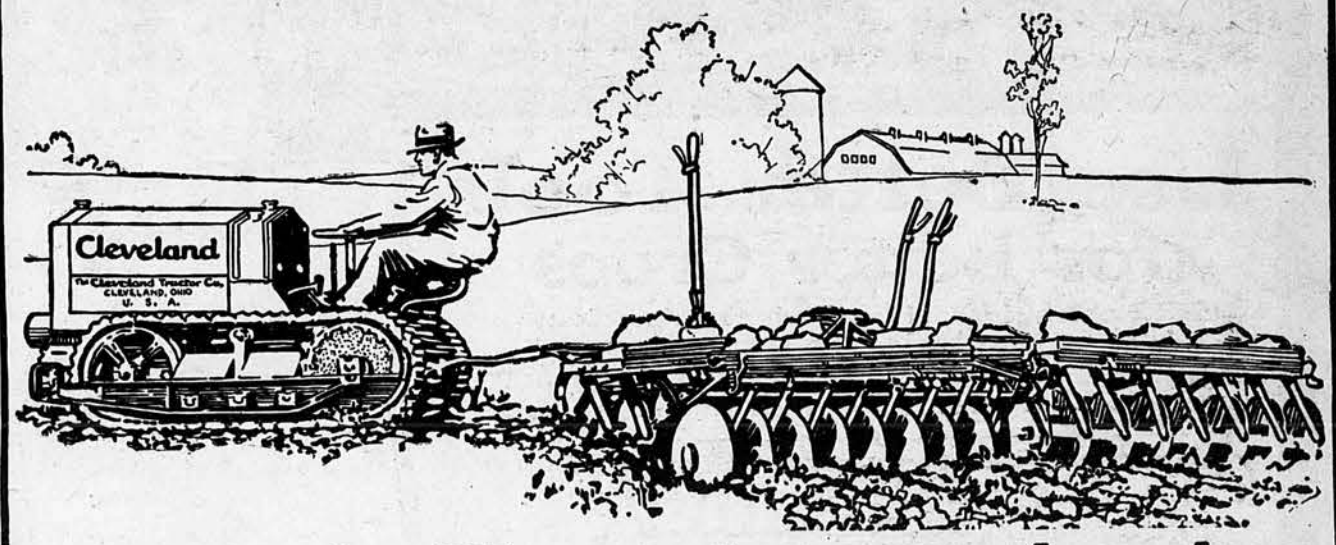
Great care should be exercised this year in making certain that all colonies of bees have sufficient stores to carry them thru the winter. Sugar is very scarce, with no prospect of there being any increase in the amount on the market. As honey can be substituted for sugar in almost every instance, it is vitally necessary that every step be taken to insure as good a honey crop next year as possible. If bees are not properly prepared for the winter, they will not live thru to do their part in gathering this surplus honey which is so much needed today. Ordinarily, in Kansas, there is enough of a fall flow of honey to carry the bees safely thru the winter, but during this season, on account of the severe drouth in the summer and the early frost this fall, the nectar supply was cut short, and the bees were not able to store enough honey to carry them thru until next year's work begins. In many cases, even where sufficient honey was left in the hives, the bees have consumed the greater part of this, so that now in spite of the fact that the beekeeper may think his bees have sufficient stores for wintering they may have eaten up the honey to such an extent that they are really deficient. In order to pass the winter successfully and be in good condition next spring, bees should have at least 30 pounds of honey to the colony. If the bees have not this required amount, then they should be fed sugar enough to bring the amount up to 30 pounds.

The Food Administration has authorized the beekeeper to buy 100 per cent of the sugar he may need. The application should be first made thru the local food administrator. He will provide blanks marked "A" and "B." Disregard blank "A" on the sheet, and fill out blank "B." Place a check mark opposite the words "Feeding Bees," or "Honey for Feeding Bees," which describe the use to which you intend to put this sugar. The blank calls for statements as to whether or not you have used sugar during the year. If you have, put in the amount; if not, disregard it. When the blank is filled out, it should be taken before a notary or some official who can administer an oath. After it has been sworn to and signed it should be then sent to the sugar division of the United States Food Administration.

If any beekeepers have not as yet extracted their honey, they should be very careful not to extract too closely. They should leave an abundance of honey in the hives to carry the bees thru the winter. In no case should a beekeeper extract honey and sell it because it is high priced, and then feed sugar because it is cheaper. This would be a clear case of profiteering, and such a practice should be discouraged.

Send us photographs of your farm homes. We will pay for those that we can use to advantage.

Cleveland Tractor



The Cleveland Tractor *does more than plow*

Your tractor, to be of real service and value to you, must do more than simply draw a plow. Plowing is *only the beginning* of what a tractor should be able to do.

It should also be able to do everything else in the preparation of the seed bed—the discing and harrowing, the planting. And it should do these things in a way that will not injure the coming crop.

The tractor should not only be able to draw the implement easily, but it should not spoil the good work the implement has done.

After the ground is broken, The Cleveland Tractor *goes over it* with the disc and the harrow, then *goes over it* with the seeder.

The Cleveland *rides on top* of the seed bed; *it does not sink into it and it does not pack the soil.*

The Cleveland *goes over soft ground* because it travels on its own endless tracks which it picks up and lays down as it goes along.

These tracks have about 600 square inches of traction surface, so the pressure on the ground is only about five pounds to the square inch—therefore there is not enough weight on the ground at any one point to inflict damage.

We repeat, The Cleveland Tractor *rides on top* of the seed bed. It *does not sink into it;* therefore *it does not have to wade or wallow through it.*

And because it *does not sink in,* it does not have to push the dirt in front of it and pack it down in order to navigate.

And because it is not obliged to push the earth in front of it and pack it down, the greatest possible amount of The Cleveland's power is available for accomplishing the work it has to do.

This is one of the reasons why *The Cleveland performs so much work on such a small amount of kerosene.*

These are but a few of The Cleveland Tractor's many advantages. It is capable of performing almost endless tasks in both tractive and stationary engine work.

The Cleveland does its work. It does it well. It keeps on doing it. It is the tractor that does the work you want a tractor to do, in the way you want it done.






The Cleveland Tractor Co. 19045 Euclid Ave., Cleveland, Ohio

The largest producer of crawler type tractors in the world

Tenant's Profits in Wheat

BY T. W. MORSE

Here are some figures which show what there is for a tenant under wheat growing conditions as they are in one good section of Kansas this year. I have them from a Marshall county farmer who keeps an accurate record of all his farming operations.

He grew 260 acres of wheat on three different farms, which gave him as good as an average of the county in the matter of soil and rainfall. Marshall county had even less rain thru the spring months than did several other counties that far west. The result was a lighter average yield than one knowing the county naturally would expect. The 260 acres in question produced 3,513 bushels, or about 13½ bushels an acre.

A complete record of the expenses incurred in producing the crop shows a total of $4,055. This means $1.15½ a bushel, and does not look so bad, as the wheat sold at $2.10. But from the standpoint of the renter all the expense had to be paid out of 60 per cent of the crop. It brought $7,393, and of this the renter's share would be $4,435.80, leaving him $380.80 profit, his labor already having been included in the cost figures.

Many a tenant has done worse, but after all $380.80 is not much velvet now-a-days for a man with the help, equipment, and experience necessary to handle even 260 acres in wheat. Inasmuch as 13½ bushels may be all the Kansas wheat crop will average this year it is fairer to base cost figures on the experience of the Marshall county farmer than on the experiences of farmers in the more fortunate sections from which high wheat yields so often are quoted, and which may have been harvested at less expense, for in Marshall county as high as $4.50 had to be paid for harvest hands.

For the land owner there is a little brighter story, but one entirely void of any bonanza flavor. His share of the crop from the 260 acres amounted to $2,957.20, or $11.37½ an acre. Out of that he has to pay his taxes. Possibly he nets 10 per cent income on his land, but I doubt whether Marshall county farms are that cheap. At any rate there is nothing here which smacks of the 100 to 800 per cent profits which some recent investigations of war industries have revealed.

Winter Pruning of Fruit Trees

Begin pruning the apple and pear trees any time after the leaves drop. Cut out all diseased branches and all crowding branches to open up the top so the sunlight can get in next year to color the fruit. If large branches must be taken off, begin sawing on the underside and cut about one-third thru of the branch; then saw from the top to meet the lower cut. In this way there will be no breaking or tearing down of the sapwood and bark, as will be the case if the sawing is all done from the top.

Cut off all branches so short that no stub will be left and after a few days cover the large wounds with white lead and raw linseed oil paint.

Do not prune the stone fruit trees until spring.

Some Clearing Costs

BY GUY G. MEANS

Mr. John Mills, a prominent farmer near Gladwin, Michigan, recently gave me the following figures on the cost of clearing typical white pine clay land in the northern part of the southern Peninsula of Michigan. He has cleared one farm of 120 acres of stumps and has 175 acres more of stump land from which he intends to remove the stumps next winter if he gets a crop this year.

He took out 540 stumps recently from 30 acres. He used small charges of dynamite to split the stumps first and to loosen the dirt from the roots and then pulled them with what is known as a tripod or steelyard puller. He estimates that it cost him an average of 30c a stump to get them on top of the ground and a total cost of $40 to remove the pieces from the 30 acres. He and U. G. Reynolds, the county agent, who was present agreed that the land easily doubled in value after the removal of the stumps.

Mr. Mills also has cleared 40 acres of land with dynamite alone. To get these stumps it took from 1½ to 2 pounds of 40 per cent dynamite a stump on the average. This cost could have been lowered because from experiments made on an adjoining farm with the same type of soil, it has been shown conclusively that 20 per cent dynamite at 4 cents a pound less cost will give just as good results as the 40, pound for pound. The cost of removing the stump wood from the blasted acre was about the same as from the pulled and blasted acre with, perhaps, a shade of advantage on the side of the blasted acre. The main advantage of the use of dynamite alone is that it requires from three to four men. On account of the present scarcity of farm labor, this is a big item. Mr. Mills says that he cannot afford to attempt to farm among the stumps no matter what the cost of removing them. The farmers of Gladwin county have good land and they are putting forth every effort this year to clear as much land as possible in order that they may do their bit to help feed the world in the present crisis.

Fixed Prices for Walnut Logs

Charles Edgar, Director of Lumber, United States War Industries Board, has authorized Jewell Mayes, secretary of the Missouri state board of agriculture, to make an announcement of the minimum and maximum prices on black walnut timber, both in log and standing in the tree. This is done as an aid to the government in securing the outturn, at fair and reasonable prices, of the walnut timber so necessary for the speedy winning of the war. This statement protects the walnut timber owner and also guards the contractor from wild, unjust rumors as to timber values. The following is the range of prices a thousand feet, lumber measure, for the diameters as named which the log buyers or the walnut manufacturers, having government contracts for gun stocks and propeller lumber, will pay for good walnut logs 12 inches and up in deiameter and 8 feet and up in length:

On board cars at shipping station the minimum price 12 to 14 inches in diameter and 8 feet long or over will be $45 a thousand feet, minimum, and $55 maximum, increasing $10 a thousand feet for each additional 2 inches in diameter until "31 and up" is reached when the minimum increase is $10 and the maximum $15, a total of $135 and $150. Equivalent value in standing timber is $25 a thousand feet, minimum, less than on board cars and $20 maximum, less, being $20, minimum, for logs 12 to 14 inches in diameter and 8 feet and over long, and $35, maximum, except for "31 and up" where the minimum to be paid is $25 and the maximum $30, a total of $110 and $120.

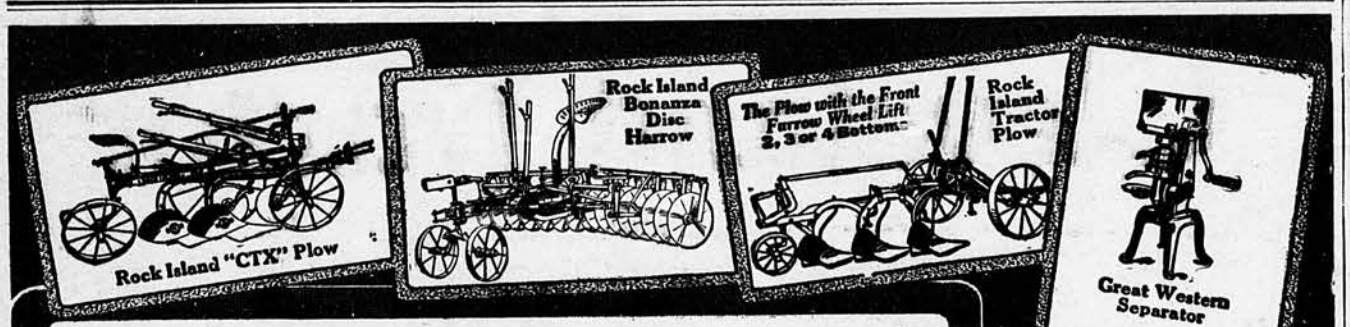
The "Doyle rule" from Scribner's Log Book will be used, measured at the small end, inside the bark, taking average diameter. No logs of less than 12 inches, 8 feet long, dimensions, should be cut because smaller logs would not pay either the owner or the saw mill man as they do not produce government material. Where possible logs should be cut 10 feet and up, as the longer logs produce more material suitable for the government's needs.

It is also desired that publicity be given to the fact that in arriving at prices which it is paying for propeller lumber and gun stocks the government has taken these log prices into consideration, and has allowed the mills prices for the material it gets which will allow for only a fair and reasonable profit to both the mills and the log buyer.

Director Edgar suggests that it is well to ask the owners to confine the sale of their walnut timber to saw mills that have government contracts or log buyers carrying credentials from such mills, as well as credentials from the government setting forth that these mills they represent have government contracts.

Improved Can Service

Dairymen who ship milk to the cities will be interested to know of efforts by the United States Food Administration to secure for them more prompt returns of milk and cream cans. At Topeka, Kansas, two additional cars have been added for handling empty cans and the service has been greatly improved. At the suggestion of the food administration, the express companies are sending out circulars calling attention to the need for quick service in returning cans to shippers.



Use Better Tools for Better Crops

THE Rock Island Line of Farm Tools—built in the heart of agricultural America—has been the guide to bigger and better crops for 64 years. Rock Island tools were the standby of America's pioneers—they are today still the big predominant leaders in their field. If you are thinking of buying any kind of farm implement, write and get our catalog of

Rock Island Farm Tools

Rock Island Plows are famous for their advanced construction; simple, strong, easy on the man, easy on the horses. Rock Island "CTX" Bottoms pick up *all* the furrow slice, turn it clear over and lay it flat. No crop-killing air spaces cut off the moisture from below. In Rock Island Bonanza Disc Harrows the discs angle from the outer instead of the inner ends. The bumpers always bump. No binding—no dead weight for the horses to pull. Great Western is the Spreader with all four wheels *under* the load—turns in its own length—spreads manure in an even blanket all over the field.

Great Western Cream Separator has the self-draining bowl and features that mean closer skimming, and easier cleaning.

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Send me that NEW book at once.

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Water for the Home

A sanitary water supply is essential to every household and should be a prime consideration in locating and building a home. This applies, of course, to rural and suburban homes, where a municipal water supply is not available. Most of the water used in our state for domestic purposes is pumped from ground water supplies. This affords nominal, tho not certain protection against contamination. Water in wells even of considerable depths may be polluted thru seepage; also flood-waters, filth and dust may get into open or carelessly closed wells. Water also may become contaminated after it has been pumped into tanks.

The well should be on high ground, preferably on a slight raise of the surface. If this is not possible the area immediately around the well should be filled in with good soil, free from organic matter and rubbish. The surface around a well should slope away from it—not toward it. Where necessary, the well should be protected by embankments or dams against flood-waters. Hand-dug wells are quite general in Kansas and if dug for a sufficient depth in the water-bearing strata and cared for afterward they are satisfactory. It is sometimes difficult, however, to dig far enough into the water-bearing gravel to insure a strong flow of water. Drilled wells cost more in the beginning than hand-dug wells, but if put down properly they are very satisfactory, both as to their upkeep and the amount and quality of water.

Dug wells are sometimes cased from the bottom with sewer pipe 10 or 12 inches in diameter, with dirt filled in around this to the top. This prevents foreign matter from getting in from above and renders them as sanitary as drilled wells. Occasionally dug wells are cased with iron pipe or sewer pipe from the bottom to a point a few feet above the water level. These are filled in around with gravel or sand. This provides a solid bottom to stand on when working in the well and makes possible the deepening of the well later. The expense of this is nominal.

The common practice of leaving wells uncurbed is not good, except where the various strata of rock and soil are hard and not likely to be affected by moisture and thus caused to crumble later. Uncurbed wells usually are of short duration. I found it necessary, a few years after digging a well, to case sections of the sides that were softening and caving in. The expense of this about equalled that of curbing the entire well at the time of digging. Concrete curbs for wells are permanent and superior to wood, tho the expense is greater. Most wood curbs rot out soon and so have to be replaced. Redwood boards, if tarred, last well, but even these decay in time. Wooden curbs in the bottoms of wells often give to water an unsavory taste. It is far better for this purpose to use sewer pipe or iron casing.

The well should be covered securely to prevent foreign objects from falling in. It is not true that well water becomes unpalatable as a result of the top being covered over tightly. The well covering may consist of 2-inch boards fitted closely. These should be treated with crude oil, creosote or tar to prevent warping, splitting and premature decay. Redwood lumber is well suited for this purpose. Concrete slabs can be used to advantage.

Poultry on Farm Tables

As a matter of business foresight and economy, as well as of patriotism, farmers who increase their production of poultry and eggs this year should plan to use a considerable part of the increase on their own tables. Much of the benefit of increasing the supply of products capable of very rapid increase, but perishable and bulky, will be lost if producers adopt the policy of marketing all the increase. In that case there would be no substitution on the farm of poultry products for the cured and compact meats which it is desired to reserve so far as possible for military use and shipment to the allies.

Many farm families could easily use several times as much poultry as is now consumed on the average farm. Analysis of the figures of the last census shows a very light consumption of poultry and eggs on the average farm. For the whole country the average yearly consumption of eggs a farm is only 137.5 dozen—2.6 dozen a week; of poultry 60 head—or one bird every six days. The highest average consumption of eggs in any state is 211.2 dozen—4 dozen a week. The highest average consumption of poultry in a state is 124.6 head—one bird in three days. Such averages indicate that farmers who use poultry and eggs freely on their own tables use from 6 to 10 dozen eggs and four to six head of poultry weekly. In view of the extent to which large stocks can be made self-sustaining during the greater part of the year on most farms, this liberal scale of consumption of poultry products would seem practical generally.

The consumption of eggs on farms may be increased greatly and farmers still receive the benefit of good prices for fresh eggs in the season of scant production and give consumers the benefit of a larger supply and more moderate prices, if all farmers who can do so will preserve as many eggs when eggs are cheap as they can use at home when eggs are dear. The average farm price of eggs in the United States in April, May and June, 1917, was 29 cents a dozen; in October, November and December, 38.7 cents. In 1916 the average difference in farm prices in the periods compared was 12.3 cents a dozen. There is a period of from five to six months in every year when the average price for fresh eggs on the farm is about 10 cents a dozen more than the average price during the season of heavy production. Inasmuch as eggs can be preserved in water glass, or in lime water, and kept in good condition for from six to nine months, and usable for a year or more, a farmer who preserves eggs when they are cheap for his own use can use eggs freely the year around and still have eggs to sell all thru the season of high prices.

The Skunk Enters Society

There is no more beautiful fur than the lovely, silky black skunk. The name is not beautiful and has long been connected with things unpleasant, but this is also changed. In Europe the fur has been sold for years under its rightful name, but in America, our mothers, wives, sweethearts and daughters would elevate their nose at the mere mention of its name, so it was necessary to rechristen Mr. Skunk after he had been skinned. This happened when the skins sold at from 25 cents to $1 and was considered a cheap fur.

In the past few seasons, since the skins have sold readily at from $3 to $6 and even as high as $10, the society lady is glad to show her set of skunk furs to her probably less fortunate neighbors.

The trapper is the one that reaps the real benefit from this change and the real big money is coming to him this year.

The skunk is a very easy animal to trap and there are many methods of catching him. They are entirely too lazy to build dens of their own, so they usually take possession of already-built dens and hollow logs.. When you can find their dens, it is only necessary to set your trap at the entrance, baited with tainted meat of any kind, cover your trap very lightly and you will get the skunk every time. Where dens cannot be found, make some by digging a hole under a stump, rock or something of that kind and place your trap right in front of the entrance.

Mr. Skunk is easy to get and easy to sell at high prices, which makes him well worth while to the trapper.

"BEATS ANYTHING FOR CULTIVATING I EVER SAW"



It's Easy and Practical

"I was agreeably surprised at the ease with which we could cultivate corn with the Moline-Universal," says Miles Kinnick of Adel, Iowa. This is the usual expression from every one who has used the Moline-Universal for cultivating.

The Moline-Universal Tractor straddles the corn row and has as much clearance as the ordinary cultivator, so corn can be cultivated in all stages of growth. The tractor is attached to the cultivator and forms one complete unit—the tractor the front wheels and the cultivator the rear wheels. The operator sits on the cultivator on line with the right drive wheel of the tractor, where he has a clear, unobstructed view of the row ahead. This is of the utmost importance for good work.

In cultivating, you follow the same rows as planted by a two-row planter. As hills in these rows are exactly the same distance apart, only one row need be watched.

The Tractor is easily held to its position, and by keeping the right drive wheel, which is in line with the operator's eyes, a certain distance from the outside corn row, the only other attention the outfit needs is an occasional shifting of the gangs by the operator's feet.

The cultivator is extra heavy and holds to its work when the cultivator gangs are shifted. The electrical governor control within easy reach of the operator enables the tractor to be slowed down to as low as one-half mile per hour.

Injures Less Corn Than Horses

By using care in turning at the ends of the rows less corn will be injured than with horses.

"I have often, without hesitation, angled into position and proceeded toward the other end of the field without hitting a hill," says W. A. Marker of Van Wert, Ohio, who owns a Moline-Universal cultivating outfit and farmed 80 acres with it, living in town 8 miles away, devoting part of his time to other work. He goes on to say: "Practice soon will make you expert if you will but consistently study the game."

"This cultivator, I feel, more than paid for itself the first season through increased yield due to timely cultivation."

"There is nothing that will beat the Moline-Universal Tractor. It will work wherever hitched. For plowing and discing it is fine; beats anything I ever saw for cultivating, just the thing for the binder and one man can handle all." Thus A. C. Paul of Middletown, Ohio, sums up in a few terse words the great advantages of his Moline-Universal Tractor.

This is not the opinion of just one exceptional individual, but is a typical expression of Moline-Universal owners.

Before designing the Moline-Universal Tractor, as manufacturers of farm implements, we knew a tractor would be of little value to the majority of farmers of the United States unless it would cultivate row crops. If a farmer is forced to keep his full number of horses for cultivating there is small economy in owning a tractor. Therefore the Moline-Universal was designed to cultivate as well as do all other work. We reproduce a few expressions from Moline-Universal owners to show just how well it has succeeded in cultivating and what bearing the cultivating feature has had on their farming operations as a whole.

Harley A. Mishler of South Whitley, Ind., farms 185 acres. The Moline-Universal enabled him to dispose of four horses. He says: "For cultivating a Moline-Universal Tractor is better than horses a dozen times. It is steady and stands the hot weather. It does not stop and switch flies but goes fast or slow just to please you."

* * *

C. R. Barr of Wyaconda, Mo., last summer had 130 acres in corn and 75 acres in oats and wheat. Since using the Moline-Universal he keeps only one team of horses. He used the Moline-Universal for cultivating and says: "I don't think we could farm again without the Moline."

* * *

Ed. Finnegan of Bradford, Ill., says: "I cultivated and tended, from the time corn came up until it was laid by, 80 acres of corn. In going over the corn for the first time you can throttle the motor down slow and not cover up any hills. After I bought my Moline-Universal I rented 35 acres more ground and the crops from this extra land paid for my tractor."

* * *

Another remarkable instance is furnished by E. E. Fletcher of Krum, Texas, who farms 500 acres—100 in cotton—and all the work is done by two Moline-Universals—not a single horse is used.

Even on the small farm the Moline-Universal is a profitable investment. Mr. Edward Belshas, Framingham Center, Mass., who farms 73 acres, says, "the Moline-Universal saved a whole lot of time, as 20 per cent tractor field work was spent in cultivating."

* * *

Fred Pabst of Oconomowoc, Wis., farms 1400 acres. He used his Moline-Universal for a great variety of work including cultivating and says: "That the tractor was satisfactory is indicated by the fact that we ordered a second one during the summer."

* * *

Chas. Walker of Blythe, Cal., raised 80 acres of cotton without a single horse. He says: "I think the Moline-Universal is the only tractor built that is practical for general farm work on account of its ability to cultivate. I would not farm in this country without a tractor, and it is needless to say that the tractor is a Moline."

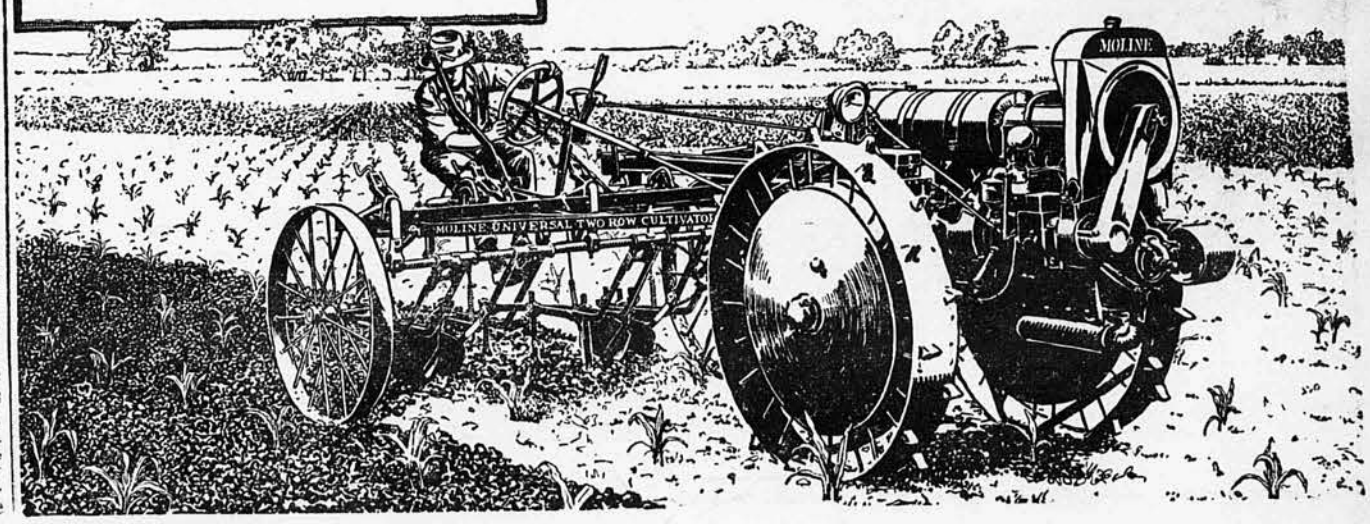
* * *

Remember the Moline-Universal does all farm work including cultivating and one man operates both tractor and implement.

Our tractor catalog gives full information. Write for free copy and name of your nearest Moline dealer. Address Dept. 23

Moline Plow Co., Moline, Illinois

MOLINE
UNIVERSAL TRACTOR



The Farm Water Supply

Nothing surprised me more on a recent trip of a few hundred miles than the various water supplies on farms along the way. In many places it was more nearly a lack of water supply. Some wells were dry because of the continued drouth, but a majority of the poor sources of supply were used regularly, so the dry weather was no excuse for the condition.

At one place we stopped and asked for drinking water, and the lady remarked that she had just emptied the bucket, but that the well was in the pasture back of the house. We took the bucket and went about 40 rods to a branch and there got water that was scarcely fit to drink. The path was well beaten, so we knew that family had been using it. At another place we saw men hauling water from a well in a draw in the pasture, and the ground was worked into a mass of clods around the well, so cattle evidently came there to drink. A rail pen was built around the well to keep them out of it. At several places we saw these pasture wells, and we had evidence that many of them were used for the house supply.

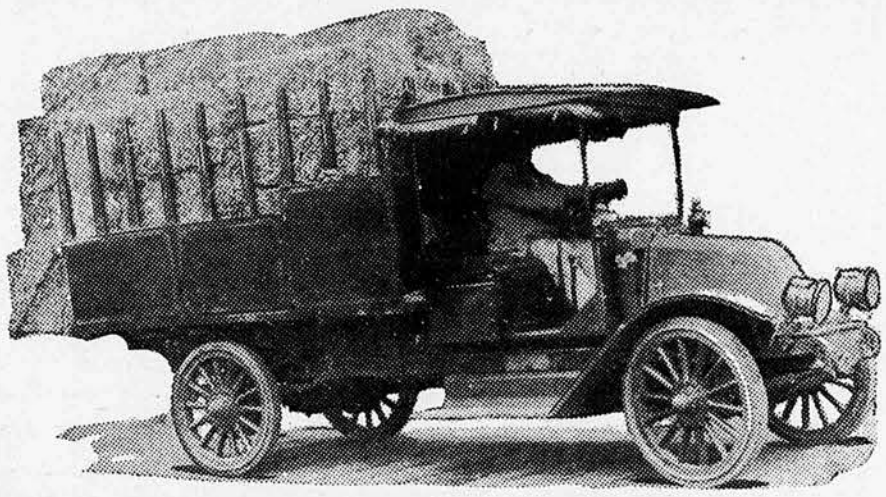
Now a good well in a pasture may be as healthful as any, but these shallow wells in draws are never healthful unless all possibility of contamination has been removed, which is seldom the case. Surface water usually can enter them either by direct drainage or by seeping in near the top. While the healthfulness is important the waste of time and the labor of getting the water is what will appeal to these farmers more surely in most cases, for, unless disease has followed its use argument will scarcely convince them it is unhealthful. It should not take much reasoning to convince them that the time wasted in bringing or hauling water would pay for a well in a short time even if the well did cost much. One farmer has been carrying water from a spring for years because wells have to go deep near the house and cost about $100 or more. That spring is down over a hill 40 rods or more from the house. All the water for house use or washing is hauled or carried.

Where wells cannot be had without heavy costs a large cistern will answer, and if necessary the water from the barn roof can be piped into it. Cistern water is healthful if properly filtered. I would have an outside filter, and also a dome filter in the bottom of the cistern. This insures pure water.

Circleville, Kan. Lewis Hillara.

Wheat Crop Buys Farm

Many Kansas farmers this year had wheat crops that were worth as much as the farms on which the crops were produced. "F. F. Marty of Bucyrus, Kan., who lives 30 miles south of Kansas City," says the Topeka Daily Capital, "threshed 6,000 bushels of wheat from 175 acres, an average of 34 bushels an acre. The entire job of harvesting and threshing was completed in 14 days and the wheat was shipped to Kansas City, where it sold for $2.21 and $2.22 a bushel, 3 to 4 cents more than the government's guaranteed price. Mr. Marty received more than $12,000 for the crop, equal to $68 an acre."



The Great War Has Brought Motor Traffic to the Front. But Peace Will Bring it into Still Greater Use Everywhere.

After the War Highways

BY F. H. NEWELL

While war may be uncertain, peace is certain. It must come some time, and with it the probability of severe industrial disturbance and need of temporary occupations to prevent hardship.

While everything possible had to be done to win the war quickly, yet at the same time there should be no cessation in activities in planning to meet the after-war conditions, especially along lines where it is known that many months will be required to mature these plans.

Now is the time to lay out extensive systems of highways, obtain all necessary rights of way, and meet legal requirements, many of which necessitate months or even years of negotiation. There is ample opportunity for most of this work, but the time will arrive when an emergency exists, and then it will not be practicable to consider carefully all of these details. There will be urgent demand for immediate construction in order to utilize temporarily an excess of labor, such as may result from sudden cessation of war activities.

It has been well said that while "thousands who would cheerfully die for their country in the stress of war, would furiously resent going hungry in time of peace," their resentment will be heard in no uncertain terms if we are not ready. It will be to the disgrace of those now in power if "the surviving warriors who were willing to die for their country find themselves unable to procure a living in it."

If we do not have plans well thought out and legal details arranged, we may be forced because of the urgent demand for work, into less effective expenditures. As a direct result of the war, much of the short-haul freight traffic has been shifted to the highways over which heavy motor trucks are now operating. This shift in tonnage has already taught us that our roads must be built upon a more permanent basis if we are to avoid excessive repair expense, and to neglect the perfecting of plans for such roads will be one form of ineffective expenditure. War has brought motor truck traffic to the front, but peace will bring it into still greater use. Moreover, our new highways must be properly laid out and carefully graded and we should not permit the building of roads with dangerous turns and grades under the spur of necessity, simply because time did not permit of better adjustment.

The planning of highways thus becomes a pressing public duty.

Irrigation Profitable

The state experimental station, located at Garden City, Kan., is doing some careful figuring just now to determine definitely the relative cost and profit of dry land farming and farming by irrigation from deep wells. The station has an irrigation plant that pumps water from a large well in which the water stands at a depth of 71 feet from the top of the ground and the average flow is about 250 gallons a minute, and Professor Knapp, the superintendent of the station, says that this flow will water 160 acres of ordinary row crops if the pump is kept going during the entire season.

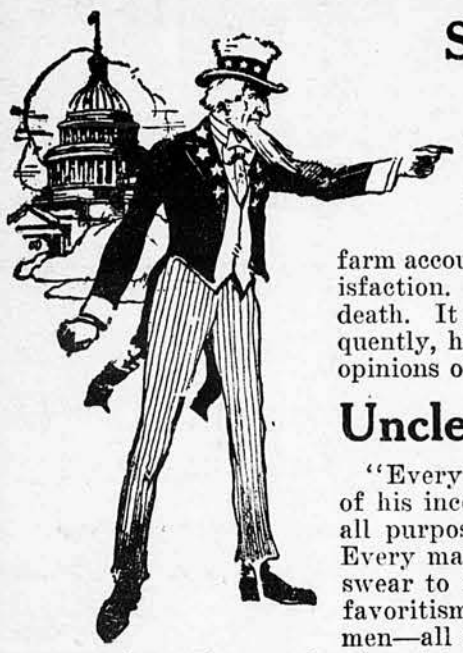
The estimate which now seems to be verified is that with this plant the cost of pumping is about $4 for irrigating an acre of ground, using enough water to cover the land 1 foot deep. The weather this year thru most of the summer was very dry and hot, and Mr. Knapp finds that it has taken six inches of irrigation, or $2 in expense, to grow a ton of alfalfa hay which, of course, shows a very large per cent of profit over alfalfa which is not watered. With irrigation scattered thru the growing season to the amount of 12 inches of water row crops make a very rapid growth, but better results are usually to be obtained by fall and winter irrigation which, on the uplands, fills the soil full of water. This is stored in the land and used in the spring, and this with light irrigations to keep the crop growing in the hot months, gives a maximum yield and a minimum cost.

Smokeless Coal

A new coal has been discovered according to Washington advices. This is practically smokeless, and valuable oils and by-products are taken from it. The name of the new product is "carb-coal," and a plant for its production will be established at Clinchfield, Va., a junction of several railroads. The War Ordnance Department will cooperate. Charles H. Smith is the discoverer of the method to treat bituminous coal in the form of briquettes with less than 4 per cent of volatile matter, and from which tuluol, sulphate of ammonia and valuable oils are extracted. The coal has been experimented with for some time and has proved a success, according to the National Fuel Administration.

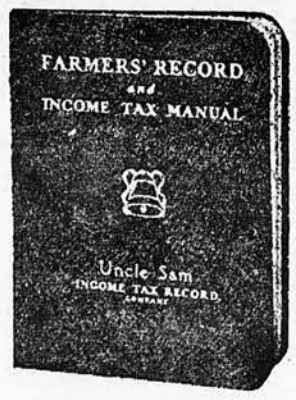
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Now, Mr. Farmer, the simpler your record the better, but it must be complete and meet the requirements of the law. The Farmer's Record and Income Tax Manual fills your need and complies with the law. It is the simplest, handiest, easiest kept and smallest complete farmer's record that it is possible to make. Nothing larger is necessary! Nothing smaller is practical! Take this Record-Manual with you and put the transaction down right then and you will always be ready when the revenue inspector comes. There are three things Uncle Sam demands—they are: What the transaction was, when it was, and what the amount was. The Farmer's Record-Manual does these three things in the simplest manner possible and also puts the transaction under the head where it belongs.

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DEPT. W. T., TOPEKA, KANSAS

Oil in Great Britain

There had long been knowledge of traces of petroleum in the Midlands of England, but it was the exigencies of the war that moved the British Government to take action.

Thru the courtesy of the American Bureau of Mines the services of an American superintendent were obtained, and the men under him, who will carry out the actual operations, are all American citizens.

In 1917, the British Government caused a petroleum production bill to be introduced into Parliament which proposed to confer royalties, but this bill was defeated on the financial question. Subsequently a new bill was brought forward which left the matter of royalties in abeyance and was designed only to give the requisite security to the industry. This bill has passed the House of Commons and is now before the House of Lords. The new bill has been framed with the object that neither the national nor the landowners' interest should be affected, the one consideration being to obtain oil and not to waste it.

A plant is now available, for the most part imported from the United States to drill 10 wells. Seven of these will be bored in the neighborhood of Chesterfield, in Derbyshire, and two of the remainder in Scotland. On October 15, 1918, the first of the Derbyshire borings was begun. In an address made by Lord Cowdray at the time, he stated that he was most sanguine of the result. It was expected that in carrying out the drilling work oil would be encountered at various horizons, the depth varying according to the locality. It is thought, however, that the principal occurrence will be at depths between 2,000 and 4,000 feet, and each of the wells they propose boring is fully equipped to go a minimum depth of 4,000 feet. It probably will be three to four months before the result of the operations will be known.

Making Sugar Beet Sirup

A subscriber of the Farmers Mail and Breeze at Herndon, Kan., has requested us to publish directions for making sirup from sugar beets.

The best beet sirup is made from fresh ripe sugar beets. In making sirup at home it is more satisfactory to work on a comparatively large scale, using from one-half to a bushel of beets at a time. The first step is to wash and scrub the beets thoroly, and if it was not done when harvesting the roots, the tops should be cut off at the lowest leaf scar. This is important because the crown of the beet contains a large amount of mineral salts, which would make the sirup bitter.

The beets are then pared and cut in as thin slices as possible. A bushel of beets will make approximately 2 bushels of slices, which should be placed in a barrel, and covered at once with hot water. The sliced beets should be permitted to soak for about an hour and stirred occasionally without uncovering. In drawing off the liquid strain it thru several thicknesses of cheese cloth or a thickness of canton flannel. No pressing is needed to remove the juice. The slices from which sugar has been extracted may be fed to livestock.

Place the juice in a kettle and boil slowly until it is evaporated to the right thickness. While the sirup is boiling a scum will rise to the surface, which should be removed completely as soon as it appears. This is because it contains the strong beet-like flavor and when removed it leaves a sweet sirup. When the sirup is boiled down sufficiently and has been skimmed carefully, it may be canned for future use by pouring into hot containers, process 10 minutes and seal completely. It can be used as needed for all purposes for which other sirups or molasses are used. It will be found especially good for table use.

More Demand for Bicycles

"If the use of gasoline is progressively restricted and trolley fares continue to increase," says the Republican of Springfield, Mass., of September 2, 1918, "bicycles will be more numerous. In fact they are already in growing use. A false sense of pride in a luxurious age has kept a good many men from depending upon the bicycle when they might have done so with benefit to health and pocket. In another New England city a physician of much more than local reputation who commands large fees, is democratically and sensibly accustomed to pedal up to his patients' doors because he likes that way of getting about. This is the week in Boston of the annual 'wheel around the "Hub,"' a two-days' bicycle tour which originated in 1878. There were some intermissions in the early years, but in spite of the automobile the event has been so well sustained that the run this week will be the twenty-ninth repetition. Capt. W. G. Kendall of the Boston bicycle club, who first took the tour in 1884, will ride as usual an old-fashioned high wheel."

To Conserve Finances

The Federal Reserve Bulletin of April divides private loans into two general classes:

(a) Loans to facilitate production or distribution.

(b) Loans for nonproductive or nondistributive purposes.

Loans of the second class are usually for nonessential purposes; types of this class of loans are loans for purchasing or carrying property or for additions to or improvements of property not used in production or distribution, and loans to states or municipalities for improvements.

Since farmers are being asked to produce more than ever before loans to farmers for productive purposes, says the Bulletin, must have the right of way; but loans for the acquisition of additional property, unless production is to be increased thereby, and loans for unnecessary construction and for articles of luxury should be discouraged.

Manufacturers, except those whose industry is necessary to the prosecution of the war, are urged to extinguish their debts rather than borrow even to increase capacity or output.

Merchants are not to be encouraged in carrying large stocks of fashionable and luxurious articles, or articles for mere comfort.

The banks of the country are urged to consider these matters in making loans to their customers and co-operate toward the conservation of credit and financial resources so necessary to the national welfare now.

The Investment Bankers' Association of America and the American Bankers' Association have both passed resolutions strongly indorsing conservation of capital and credit and promising co-operation with the Capital Issues Committee of the Treasury.

Drier Made from Woven Wire

One of the cheapest and best contrivances on which to dry seed corn may be made from electric weld woven wire. Pieces of old or new fencing may be used in this way and all you need to make them is a pair of wire clippers. The diagram shows one of these wire hangers. Just clip the cross wires midway between the upright wires then bend up the cut ends and every one of these ends will be ready for a seed ear. Bend a loop in the upper end of the upright wire and when filled with ears suspend these hangers in a dry, sheltered place.



E. R. H.

Why Call Them "Accounts?"

Under the heading, "What Farm Accounts Show" a contemporary which ought to know better prints some cost figures which would do farmers a lot of harm, were they not so low as to be ridiculous. The first is on the cost of man labor, including board, and gives it at 12.74 cents. It is said these figures were determined by a short course student in the Missouri College of Agriculture. We wonder whether he was present at the recent conference of wheat growers at Carrollton, Mo., where it was decided to pay 40 cents an hour to shockers during harvest. Kansas pays 45 cents. Among other cost enlightenment afforded by the researches of this expert are the following items:

"Cost of horse labor, not including interest, 12 cents an hour; cost of producing a ton of hay, including interest at 5 per cent, $8; cost of producing a pound of pork, counting feed, labor, equipment, depreciation, 9.8 cents."

This sort of ignorant effort does not fool the farmer, but it puts wrong ideas into the heads of a lot of other people whose persistent declarations that all farmers are getting rich has made proper regulation of prices very difficult.

Lack of Faith

During an extended drouth, down in the land that inspires the ragtime-song writers, the "Rev'end" George Washington called a gathering of his colored brethren to supplicate the Lord for rain.

Before he opened his sermon the "Rev'end" surveyed his congregation very critically, and with increasing dissatisfaction. At last he lamented:

"De lack ob faith ob yo' niggers is scandalous and sinful, and makes my heart sore and weary, and plumb afeared for your souls. Heah we hab gathered to beg de Lord to stop de drought dat is burning up our fields, and to bless with rain in abundance. And not one, no sah, not one of yo' disgraceful sinners had faith enough to bring an umbrella to go home with."—Everybody's Exchange.



Gunner Depew
By Himself

A WAR BOOK? Yes. But a war book **plus.** It is an American sailor-fighter's story that is unique in the annals of the Great War—an autobiographical narrative of three thrilling adventure-crowded years that in sheer unflagging interest yields nothing to the most daring romance.

GUNNER DEPEW is the only war book of personal adventure written by an American sailor who fought on land and sea—in Flanders and at Gallipoli.

GUNNER DEPEW contains the only complete account of the capture by the German raider Moewe of the S. S. Georgic and Yarrowdale—the only description of the famous Yarrowdale cruise around the north of Iceland and into Germany.

GUNNER DEPEW is the only war book written by an American which describes the wretchedness and misery of German Prison Camps—especially that most infamous of all camps, Brandenburg, "The Hell Hole of Germany."

What They Say About Gunner Depew

"I think this one of the best war books I have seen."—John R. Rathom, Editor, Providence Journal.

"It appeals to me as one of the most gripping war narratives I have ever read."—Managing Editor, Cleveland Plain Dealer.

"The Gunner seems to me a very good book indeed. * * * Read it through at one stretch, enjoying his phraseology and the straightforwardness which makes it ring so true."—William MacHarg (co-author of "The Indian Drum").

"Depew's story needs no embroidering, no exaggerations. It is a tale that would loom in graphic quality if told in words of one syllable. That part of it which relates to the voyage of terror on the Yarrowdale has been told in its completeness by no other writer."—New York World.

"Told in a more unsophisticated, self-revealing, and war-revealing fashion than most of its predecessors. Every page is worth reading."—Chicago Post.

"The book is a simple narrative of a boy who loved adventure, fought with his fists or a gun or a cannon or anything else, and it must be said for him that he makes no pretensions whatever. It is a capital book which gives us another of those intimate touches with regard to this war which are entertaining and inspiring."—Philadelphia Enquirer.

"It is a rere find in the literary world."—Rochester Democrat.

"It is a manly, straightforward narrative,—another of the human documents which cast a realistic sidelight on laconic dispatches."—Spokane Spokesman Review.

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A Narrative of the War So Big—So Thrilling—So Entirely New—That It Will Hold You Spell-Bound

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From the shell-battered trenches at Dixmude, this thrilling story carries one to the "Splendid Failure" of Gallipoli—then across mine-strewn, submarine-infested seas into the prison camps of Germany.

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160 A., new imps., 70 cult., bal. pasture, $50 a. Good bargain. **Severns & Hettick, Williamsburg, Kan.**

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FOR SALE—All kinds of farms in N. E. Kan. Send for printed list. **Silas D. Warner, 727½ Commercial St., Atchison, Kan.**

600 ACRES, fine, improvements; 200 wheat, all goes; 200 pasture, bal. corn and hay land. **THEO. VOSTE, OLPE, KANSAS.**

160 A. Anderson Co., Kan. Well imp., 60 a. wheat, ½ goes; abundance of water, good pasture, $60 acre. **TRIPLETT LAND CO., GARNETT, KAN.**

WELL IMPROVED 160 acres, Stevens county, Kansas. Some grain and feed goes with farm. Price, $3,600. Good terms. **P. Pearcy, 1001 N. Kan. Ave., Liberal, Kan.**

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

80 ACRES, seven-room house, cellar house, fruit, large barn, 30 hog pasture, 8 wild meadow, 42 cultivation, $65 acre, $2,200 handle. Town school. **P. H. ATCHISON, WAVERLY, KAN.**

80 ACRES, 1 mi. of Ottawa, all tillable, 30 a. wheat, 6-r. house, good barn, gas for fuel. $125 per acre. Write for our farm list. **CASIDA CLARK LAND CO. Ottawa, Kan**

IMPROVED 320 ACRES, 110 cult. Balance blue stem grass, 80 acres bottom land. Price $21,000. 80 acres improved, close to town, price $5,000. **F. L. McCOY, ESKRIDGE, KANSAS.**

CHOICE WELL IMPROVED 160 ACRES 160 a. all tillable, fine corn, wheat and alfalfa land. 8 a. alfalfa, 30 a. wheat goes with farm. 8-room house, large barn, plenty of water. A big bargain. Only $60 per acre. **M. T. SPONG, FREDONIA, KANSAS.**

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

WELL IMPROVED RANCH 800 acres, 3 miles shipping on Santa Fe, 15 miles from Emporia; extra good buildings, 100 acres in alfalfa, well watered, $50 per acre. Write for list of farms and ranches. **T. B. GODSEY, EMPORIA, KANSAS.**

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Square section, 8 miles railroad, 80 acres cultivated, balance bluestem grazing land, nice stream, timber, fine water, good buildings. Fine for the stockman. Price $32,000. Liberal terms.
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B. F. Axtell, (Owner), Sterling, Kansas.

200 ACRES 3 miles of good town; 130 acres good creek bottom, 60 alfalfa, 25 wheat and 25 to 30 for crop. Good 5-room house, cellar, barn, hay barn, implement shed, crib and hog house. $75. We have choice 80s, 160s and larger tracts. Write for descriptive circular. **Dickey Land Co., Ottawa, Kan.**

FOR SALE—80 ACRES 1 mile from town; 60 acres in wheat, 79 acres tillable; rich, black limestone land; 10 acres meadow. Improvements poor. Price $65 per acre includes ½ wheat.
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140 A., 5 mi. Lawrence, fine imp. 40 a. alfalfa; 70 wheat goes. $140 a. 320 a., fine imp., 27 mi. K. C., 6 mi. town, oil road, 175 a. wheat goes. $115 a. 120 bottom no overflow, good imp., 116 wheat goes. $150 a. We have large and small farms at big bargains. **Wilson & Clawson, 744 Mass. St., Lawrence, Kan.**

AS ADMINISTRATOR I am authorized to sell the Peltier's estate, consisting of one-half section of land, all under cultivation except 20 acres of pasture on the quarter that is improved. It's level enough that it could be all plowed with a tractor going around the whole half section. There are good improvements on one quarter, one seven-room house, one barn for twelve horses, good well and windmill, granary, etc. On the other quarter there is a big granary that holds seven thousand bushels of grain, that has a driveway. This farm is a quarter of a mile south and four miles west of the city limits of Concordia, Kansas. This is one of the best farms of Cloud county and it never was offered for sale for the last 36 years. I will sell one quarter if desired. And also a seven-room house with electric and bath. This house is in the best location of the city of Concordia. It is 2½ blocks east of postoffice on Seventh street. Will not consider any trade. For further information write or see
WILFRID PELTIER, CONCORDIA, KAN.

320 A., fine creek bottom farm, 6 mi. from Hartford; every foot level cleared timber bottom land absolutely free from overflow; two sets improvements; school 1 mi.; 175 a. wheat, half goes with place. Will divide farm if desired. Price $90. For sale by **Ed. F. Milner, Hartford, Kan.**

FOR SALE 80 ACRES. 80 acres cultivation, 40 acres bluestem pasture, 33 acres black lime stone upland, 7 acres river bottom, good six-room house, small barn, double crib, chicken house, 3 mi. town, phone, R. route, school ¾ mi. $37.50 per acre.
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NESS COUNTY WHEAT LAND
480 acres located 5½ miles from Ness City. All good smooth land, well and wind mill, barn for 10 head of stock, 60 acres in cultivation, can all be farmed. Price, $30 per acre. Write for list and county map.
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160 ACRES FOR $3,200
Near Wellington; improved; good loam soil; 70 wheat, 20 alfalfa, 35 pasture, 20 hay; possession. Only $9,600; $3,200 cash, $500 year.
R. M. MILLS, Schweiter Bldg., Wichita, Kan.

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53 a., 2½ miles Iola on main road; good 5-room cottage; nice barn and out bldgs.; no waste land; price, $6.000. $2,000 cash, balance terms.
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320 A., $70 CASH
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230 acres, 3 miles of good town, 100 acres first bottom in one field, all in wheat, 40 acres mow land, balance blue stem grass, extra good improvements, $65 acre.
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NOTICE
I own land in the following counties. Ford, Hodgeman, Gray, Kearney, Anderson, Bourbon, Greenwood, Coffey, Kansas. Stanley Co., So. Dakota. Taney Co., Mo. Crawford Co., Ark. Will sell all or any part. Will consider trade on all or any part of it. 160 & 240 Hodgeman Co. twenty five dollars acre. For General Merc., 4 room house Kinsley Clear for western 160. Buick six for clear quarter. **E. W. Moore, Spearville, Kans.**

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Write me for prices on wheat and alfalfa, farms and ranches. $10 to $25 per acre.
W. V. Young, Dighton, Kan.

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Good wheat, alfalfa and ranch lands at from $10 to $25 per acre. Write for price list, county map and literature.
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$2,400—$600 CASH
Balance long time 6%. Small house, windmill, fence, cultivated land. Immediate possession. Write owners.
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400 acres of smooth land near Colony, Anderson Co., Kansas. 240 acres good grass, never been pastured. 160 acres wheat. Easy terms, low rate of interest. Address,
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320 acres, all bottom, no overflow, blow soil or gumbo, 70 acres big crop producing alfalfa, all 170 acres fine wheat goes. New modern 10-room house, Delco lights, good six-room house, two large barns, two large silos, large cattle sheds. Fenced hog tight, over $12,000 sold from place this year. For sale worth the money, no trades, other bargains. Write for list.
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OUR BIG new list for the asking. **Amoret Realty Co., Amoret, Mo.**

BATES AND CASS CO., MO., improved farm bargains, all sizes. **Duke, Adrian, Mo.**

WILL SELL either 152 a. well improved, $3,500, or 80 a. unimproved, $1,200. **E. A. Lund, Mansfield, Mo.**

126 A., 6 miles of corporate limits, Kansas City, Mo., modern farm, take central Kansas land. **Box 395, Atchison, Kansas.**

LISTEN, dandy improved 160 acres, $4,000, terms, improved 80, $1,600. Improved valley 40, $1,400. **McGrath, Mountain View, Mo.**

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W. J. BARKER REALTY CO., Bolivar, Mo. Write for booklet and prices. Best bargains in Missouri.

FARMS, ranches, timber lands. Write us today for bargain list. Good water, healthy climate. **Douglas Co. Abst. Co., Ava, Mo.**

IF YOU WANT a large or small prairie or timber farm, pure spring water, no crop failures, write **J. E. Loy, Flemington, Mo.**

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

115 A., 100 a. fine bottom land, 90 a. cult., 16 a. alfalfa, bal. corn, all fenced, 4 r. house, fair barn, 3 mi. county seat on Sugar creek. Price $7,500. Terms. Write **Sherman Brown, Pineville, McDonald Co., Mo.**

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J. G. McMAHON FARM, 100 a. with good six-room dwelling house, large barn, two wells and windmill. Ice house, garage, tool shed and other houses, all in good condition, farm fenced. Price, $85 per a. Good title. Heirs all girls and cannot conduct the farm. Write **J. M. HUNOLT, EDINA, MISSOURI.**

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A Farm-to-Soldier Plan

Governor Arthur Capper has sent a letter to Dr. H. J. Waters, editor of The Kansas City Weekly Star and chairman of the Kansas Council of Defense, asking that plans be worked out for providing lands for the Kansas soldiers and sailors soon to return from Europe.

The letter says that more than 80,000 Kansans will be coming back from the front, and that more than 60 per cent of them either were engaged in farming or had some experience in agricultural pursuits. Kansas State Agricultural college and state university experts say 4½ million acres in Western Kansas can be irrigated by pumping from deep wells. Governor Capper believes the state council of defense should recommend some plan whereby a soldier could obtain 40 acres of land on long-time payment from the state, and be lent sufficient funds to equip the farm for raising grain and stock.

The governor points to a program of public improvements, such as building good roads, bridges, school buildings and other structures, to keep all labor employed and preventing hardship.—Kansas City Weekly Star.

Winter Rust Harmless

Farmers need not worry over the rust now seen in Kansas wheat fields—it is not the variety that causes failure of the crop. This is the statement of L. E. Melchers, state plant pathologist.

Only the so-called yellow leaf rust is now present in the fields of the state. This causes yellowing and drying of the leaves, but the plants will outgrow this in the spring.

The black rust, also known as black stem rust, which is common in spring wheat areas, is the rust that causes complete failures of wheat crops. None of this rust is now present in the Kansas wheat fields, and if spring weather conditions are normal none is likely to appear. It would be likely to be found only if a very wet spring should follow the wet fall, and even then it would not be certain to appear.

The Manless Ranch

Mrs. Maggie V. Smith Hathaway, of Helena, has proved that it is possible to run a big ranch of 600 acres without the aid of men's labor. She knows, because she has successfully conducted her "manless ranch" for six years, raising grain, cattle and sheep.

Mrs. Hathaway began life as a school teacher. In a few years she became county superintendent. Later she married Mr. Hathaway, assistant state superintendent of schools, who owned a 320-acre ranch adjoining her own.

After the death of her husband Mrs. Hathaway farmed the two ranches. It was difficult to get masculine help, so she introduced modern machinery that could be operated by women, and announced to the countryside that hereafter her place was to be called the "Manless Ranch."

Killed Millions

With the issue of the official figures of the French losses in the war, it is possible to arrive at the approximate estimate of the appalling toll of life. The dead, so far, number 5,936,504. The individual national losses in dead thus far announced are: British, 706,726; French, 1,071,300; American, 58,478; Russian, 1,700,000; Austrian, 800,000; German, 1,600,000.

The total German casualties are given by the Berlin Vorwaerts as 6,330,000, and the Austrian total was placed at 4 million. Serbia, in killed, wounded and prisoners, lost 320,000 men.

Remarkable Photograph of Ship a Few Moments After a Torpedo Struck Her



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PUREBRED NARRAGANSETT TURKEY toms for $8. They are nice birds. J. A. Lahman, Bluff City, Kan.

FULL BLOOD MAMMOTH BRONZE TOMS. $12 and $15. Satisfaction guaranteed. Mrs. E. Gaughan, Earleton, Kan.

THOROUGHBRED MAMMOTH BRONZE turkeys. Hens, $7; toms, $10 and $13. Ralph Mariner, Fredonia, Kan.

LARGE BONED PUREBRED MAMMOTH Bronze turkeys from high scoring stock. Elizabeth Knaus, Kingsville, Mo.

GIANT MAMMOTH BRONZE TURKEYS—Thrifty range-raised birds. Toms $10-$15. Hens $5. W. H. Streeter, Dighton, Kan.

MAMMOTH BRONZE TURKEYS. PRIZE winning stock, big boned and thrifty. Five to ten dollars. Mrs. A. Burg, Lakin, Kan.

MAMMOTH BRONZE TURKEYS. PRIZE winning blood, from hens 18-25 lbs. Goldbank sire. Mrs. James Aitken, Severy, Kan.

BOURBON RED TURKEYS, WHITE TIP wings and tail. Toms, $6.50; average 20 lbs. Hens, $5. Mrs. Montie Brown, Modoc, Kan.

FOR SALE—MY OLD NARRAGANSETT breeding stock. 3 hens and 1 tom, $25. Also young toms, $7.50. Mrs. S. W. Rice, Wellsville, Kan.

MAMMOTH BRONZE TURKEYS FROM the finest strains in America. Bred for vigor, size and quality. Mrs. E. B. Powell, Higginsville, Mo.

PURE BLOOD GIANT BRONZE TURKEYS. Sired by a son of the "World's Frisco Exposition tom." Satisfaction guaranteed. Dona Daily, Scottsville, Kan.

MAMMOTH BRONZE TURKEYS. TOMS $10.00 to $15.00. Pullets two for $12.00; three for $15.00. The best breeding. Satisfaction guaranteed. R. L. Parrott, Osborne, Kan.

IDEAL MAMMOTH BRONZE. GOLD BANK strain. Mature toms weigh 40 pounds; hens 22. Young toms, 24-26 pounds, $10. Hens, 12-16 pounds, $7. The best go first. Laura Ullom, Lamar, Colo.

BOURBON RED TURKEYS—PURE BRED, very large, splendidly colored birds. Toms $7.00. Hens $5.00. Also mammoth sized Barred Plymouth cockerels $3.50 each. Mrs. Geo. McNeill, Graham, Mo.

SEVERAL VARIETIES.

1949 COCKERELS, 49 VARIETIES. FREE book. Aye Bros., Box 5, Blair, Neb.

WHITE LANGSHAN AND RHODE ISLAND Red cockerels, Single Comb, $2 each. Mrs. H. A. Ritter, R. 2, Goodman, Mo.

BLUE ANDALUSIAN, BUFF LEGHORN cockerels, Buff Orpington, ducks, Bourbon Red toms. John A. Huber, La Crosse, Kan.

FINE BARRED ROCKS, LIGHT BRAHMAS, White Leghorns. Cockerels, geese, ducks, guineas. Emma Ahlstedt, Lindsborg, Kan.

58 VARIETIES FINE PUREBRED CHICKens, ducks, geese, turkeys. Prices reasonable. Catalog 4c. A. A. Ziemer, Austin, Minn.

WHITE ROCK COCKERELS, EMBDEN geese and Pekin ducks for sale cheap if taken soon. Mrs. W. T. Holligan, Emmett, Kan., R. 1.

FOR SALE—PRIZE WINNERS. S. C. BUFF Orpington, Blue Andalusian, Toulouse geese and ganders, Indian Runner ducks. Mrs. Viola Branic, Netawaka, Kan.

GAME BIRDS.

CHINESE RINGNECK PHEASANTS, pairs, trios; wild Mallards, pairs; "Goldbank" turkeys; "Ringlet" Barred Rocks. Booking orders eggs of above; also Golden, Silver, Lady Amherst pheasants, peafowls, Japanese silkies, Buff Cochin bantams. Mrs. Iver Christenson, Jamestown, Kan.

POULTRY WANTED.

RUNNER DUCKS WANTED. EMMA AHLstedt, Lindsborg, Kan.

PATENTS.

SEND FOR FREE BOOKLET "ALL ABOUT Patents and Their Cost." Shepherd & Campbell, patent attorneys, 734A 8th St., Washington, D. C.

WANTED IDEAS. WRITE FOR FREE patent guide books, list of patent buyers and inventions wanted. $1,000,000 in prizes offered. Send sketch for free opinion of patentability. Victor J. Evans & Co., 825 Ninth, Washington, D. C.

CANARIES.

BEAUTIFUL YELLOW PAIRS, ALSO cages. Fancy pigeons, Pouters, Turbits, cheap. Mrs. Iver Christenson, Jamestown, Kan.

DOGS.

FULL BLOODED ISLAND WHITE SCOTCH Collie pups. Richard Spencer, Wiley, Colo.

FOR SALE—ONE IRISH SETTER 18 months old. Male. W. A. Cripe, Council Grove, Kan.

COLLIE PUPS, ELIGIBLE TO REGISTER, well marked; males $10, females $5. E. B. Parker, Lyons, Kan.

COLLIE PUPS FROM NATURAL HEELers. Farm raised. Males, $5; females, $3. Lonnie Simmons, Route 3, Erie, Kan.

SEEDS AND NURSERIES.

CHOICE, PROLIFIC SEED CORN, $3. FIVE bushel lots, $12.50. Ear or shelled. Wiltse, Rulo, Neb.

A SMALL AMOUNT OF CHOICE RED fodder cane seed at $5 per hundred. H. E. Morton, Oberlin, Kan.

KAFFIR OR MILO SEED FOR SALE IN car lots or less. Good cane seed. Farmers Elevator, Wilburton, Kansas.

PURE GOLD MINE AND BOONE COUNTY White seed corn, $4 per bu. Choice alfalfa, $11 per bu. J. F. Feigley, Enterprise, Kan.

SCHROCK KAFIR SEED—FIVE CENTS per pound, quantities less. Drouth resistant, palatable. Clyde Abbott, Long Island, Kan.

WANTED TO BUY—FEW CAR LOADS OF Black Amber, Orange and Red Top cane seed. Quote lowest price. Sharp Grain Co., Healy, Kan.

ALFALFA SEED $8 to $9.50 PER BUSHEL. White hulled Sweet clover, $13; unhulled, 70 pounds, $11. Sacks 75 cents. R. L. Snodgrass, R. 4, Augusta, Kan.

TREES AND SEEDS—DON'T PLACE YOUR order until you see our prices and terms. Save agent's commission and get wholesale prices. Write today for catalog. Seeds fresh and tested. Wichita Nurseries & Seed House, 2131 Schell Building, Wichita, Kan.

SEED CORN—MEXICAN JUNE CORN FOR sale. We have a small amount left that we are selling at $3.00 per bushel, f. o. b. here. Nothing sold less than one bushel. Cash must accompany order. Maize, feterita, Sudan and cane seed. Write for prices. C. E. Parks Grain Co., Lubbock, Texas.

DWARF AND STANDARD BROOM CORN seed, Red Top and Golden cane, Darso, Hegari, Shrock and Red kafir, $7. Dwarf and Standard cream and red maize, feterita, Amber, Orange and sourless cane, dwarf and standard white kafir, $6.50. Sudan, $20. All per 100 pounds, freight prepaid. Prepaid express, $1 more. Claycomb Seed Store, Guymon, Okla.

FOR SALE.

FOR SALE—HEDGE POSTS, CARLOTS. D. C. Beatty, Lyndon, Kan.

FOR SALE—CATALPA POSTS, CARLOTS. H. W. Porth, Winfield, Kan.

PINTO BEANS, 100 LBS. F. O. B. HERE, $8. R. E. Hooper, Stratton, Colo.

WANTED—30-6 RUMELY OIL PULL TRACtor in good shape. Sharp Grain Co., Healy, Kan.

JOHN DEERE ENGINE GANG 8 BOTTOM with sod bottoms nearly new. George Rahenkamp, Hooker, Okla.

BEANS FOR SALE—GOOD WHITE NAVY beans, 10c per pound in lots 120 lbs. sacked, F. O. B. Rushville. From grower to consumer. F. C. Kohout, Rushville, Kan.

LEAF TOBACCO, KENTUCKY'S BEST, 2 yrs. old, chewing or smoking, 3 lbs., $1.50; 7 lbs., $3; prepaid. Special prices on large quantities. S. Rosenblatt, Hawesville, Ky.

GRAIN ELEVATOR AND LUMBER YARD for sale. Owner has had over fifteen years successful business. A fine opportunity in a good community. Address Number 10, Mail and Breeze.

FOR SALE—ONE BATES STEEL MULE tractor, 16 horse draw bar, 30 belt. Pulls four 12 inch plows nicely. Nearly new in first class mechanical condition. For quick sale, $750. C. W. Griffin, Chanute, Kan.

BALE TIES WHOLESALE AND RETAIL, lumber direct from mill in car lots, send itemized bills for estimate. Shingles and rubber roofing in stock at Emporia. Hall-McKee Lumber & Grain Co., Emporia, Kan.

HIGH PRICES PAID FOR FARM AND dairy products by city people. A small classified advertisement in the Topeka Daily Capital will sell your apples, potatoes, pears, tomatoes and other surplus farm produce at small cost—only one cent a word each insertion. Try it.

CASH OR WORK HORSES AND COLTS wanted for the following property: One registered Percheron stallion; 1 Mammoth jack, and 3 tractors, as follows—1 Mogul, 10-20, 1918 model, used 1 season; 1 Emerson, 10-20, model L, used 2 seasons; 1 Hart-Parr, 10-20, 1915 model, used 2 seasons. Bargain for a quick turn. C. L. Davenport, Pretty Prairie, Kan.

FOR SALE—EIGHT-ROOM HOUSE, EIGHT fifty-foot lots; four blocks from college. Electric lights, near city water and sewer line; barn, chicken house, large park. Also five acres mostly fruit, cherries, grapes, plums, rhubarb, asparagus, strawberries; irrigation plant. Also twenty-two and one-half acres, three-room house, good barn. Mostly in alfalfa. Tracts all located near brick road from Hutchinson; water any quantity at ten feet. R. G. Abbott, Nickerson, Kan.

HONEY AND CHEESE.

HONEY OF SUPERIOR QUALITY 1918 crop. Also Green county's famous brick cheese. Write for prices. E. B. Rosa, Monroe, Wisconsin.

DELICIOUS PURE HONEY, ALFALFA-clover extracted. Two 60-pound cans, $35. Sample, 15c. Reference: First National Bank, Boulder. Wesley Foster, Producer, Boulder, Colo.

LANDS.

HIGH PRICES PAID FOR FARM AND dairy products by city people. A small classified advertisement in the Topeka Daily Capital will sell your apples, potatoes, pears, tomatoes and other surplus farm produce at small cost—only one cent a word each insertion. Try it.

FREE GOVERNMENT LANDS—OUR OFficial 112-page book "Vacant Government Lands" lists and describes every acre in every county in U. S. Tells location, place to apply, how secured free. 1919 diagrams and tables, new laws, lists, etc. Price 25 cents postpaid. Webb Publishing Co., Dept. 92, St. Paul, Minn.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $800 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 404 Santa Fe Bldg., Topeka, Kan.

Kansas Has Valuable Crops

A recent report of the Kansas state board of agriculture shows that the value of the agricultural products of Kansas for 1918 amounted to $592,017,324. This is $84,500,000 more than the state's next best record in 1917. The value of the livestock on the farms is $361,868,765 which is the largest ever reported. It exceeds that of 1917 by more than $9,200,000.

Last year, wheat averaged about $2 a bushel, or 6 cents lower than 1917; corn, $1.44 or 31 cents more than last year; oats, 70 cents, or 10 cents more; kafir, $1.54, or 12 cents more; alfalfa $21 a ton, or $3 more; and prairie hay $17, or $3 more; while potatoes ranged nearly the same.

The value of animal products is higher than ever before, amounting to 145 million dollars as against 11 million dollars, the highest previous value in 1917. As is always the case, the item contributing most largely to this showing is that of animals slaughtered or sold for slaughter, amounting this year to $108,073,000, as against $81,596,000 in 1917. The increase from poultry is about $640,000, and the value of dairy products is greater by about 6 million dollars.

Final threshing returns indicate that the state's production of winter wheat last year amounted to 93,008,941 bushels, or an average acre yield on the area harvested of 13.73 bushels. The 1917 production was 41,479,464 bushels, with an average yield of 11.72 bushels to the acre.

The corn yield is estimated at 44,539,488 bushels; oats, 50,482,487 bushels; alfalfa, 2,746,460 tons; prairie hay, 694,208 tons; kafir, 9,808,678 bushels; and potatoes 2,652,004 bushels.

Recent rains and snows have put the new wheat crop in excellent condition to go thru the winter and farmers hope that there will not be much damage by winter killing. Local conditions in the state are shown in the county reports that follow:

Cheyenne County—The wheat is blanketed with 12 inches of wet snow. The roads are almost impassable and we have had no mail for a week. Stock without shelter will suffer from the sudden cold spell. Butterfat brings 68c; eggs, 55c; corn, $1.30; barley, 80c.—F. M. Hurlock, Dec. 27.

Franklin County—A snow of 11 inches, which fell on December 23, holds the record for being the second heaviest in many years. East and west roads are badly drifted. We have had no zero weather yet. Feed is not plentiful and stock soon will begin to show the effects of short rations unless the snow melts rapidly and wheat fields may be pastured. Eggs are not plentiful and sell for 55c; corn, $1.65; oats, 70c.—G. D. Elmer, Dec. 28.

Hamilton County—During the last 10 days we have had over 40 inches of snow, rain and sleet. Cattlemen on the uplands face a serious situation, as feed is scarce and high. If we have severe weather during the next two months thousands of head of cattle will perish for want of feed, unless cattle are shipped where feed is more plentiful, or feed is brought into the county. Folks are using sleds and snowboats to get over roads to haul supplies.—W. H. Brown, Dec. 29.

Kiowa County—We have sufficent moisture, as at present a heavy blanket of snow covers the ground. Roads are nearly impassable. The wheat outlook is encouraging. Many of our boys have been mustered out of military service. Some corn is still in the fields and no shelling has been done yet.—H. E. Stewart, Dec. 28.

Labette County—Our snow of December 24 will be an excellent protection for the wheat crop. Few hogs are going to market. A few public sales were held last week. Eggs are 50c; butterfat, 68c; oats, 68c; corn, $1.25 to $1.50.—George H. Schuttler, Dec. 28.

Lincoln County—Real winter weather has set in. There is about 5 inches of snow on the level. Farmers completed threshing cane and feterita just before the cold weather came.—F. W. Huhl, Dec. 28.

Marion County—The heaviest snow in 30 years fell in this section of the county last week. Christmas was rather quiet as all means of transportation were demoralized. Business is at a standstill. Farmers are feeding stock.—C. L. Ashford, Dec. 28.

Marshall County—A heavy snow fell last week and drifted badly. Everything is at a standstill. There is little feed on hand and the fields cannot be pastured because of the heavy blanket of snow. Corn is $1.45 to $1.55; millet, $2.25; shorts, $2.25; bran, $2; hogs, $16.50; hens, 20c; cream, 65c; eggs, 56c; hay, $30.—C. A. Kjellberg, Dec. 28.

Meade County—Grasshoppers made it necessary for farmers in some sections of the county to reseed their wheat crops. We had a heavy snow last week and it drifted badly. No mail on rural routes was delivered for several days. Feed is scarce and horses and cattle are thin at the beginning of winter.—W. A. Harvey, Dec. 27.

Miami County—The corn crop was very light and shipped in corn sells for $1.50. Wheat is in excellent condition with enough moisture for the entire winter. There is considerable hog cholera in the county. Hay sells from $25 to $35.—F. J. Haefele, Dec. 19.

Morton County—The heaviest snow fall in many years covers the ground today. We have had no mail for several days, as the roads are impassable. Maize is $2.25; cane seed, $2.75; eggs, 50c.—E. Rae Stillman, Dec. 19.

Ness County—About 12 inches of snow improves the prospects for our spring wheat crop. There is plenty of straw and oil cake on hand, but other feeds are scarce. Butterfat, 68c; eggs, 58c.—R. C. Buxton, Dec. 28.

Rawlins County—This 12-inch snow will greatly benefit the wheat crop. Stock is coming thru in good condition where feed is plentiful. Very few public sales are held on account of the influenza epidemic. Butterfat sells for 69c; eggs, 55c.—A. Madsen, Dec. 21.

Saline County—The weather has been damp and foggy all week. Marketable hogs, including brood sows, are being sold on account of high priced feed and failure of the corn crop for several years. Many sales are held and feed and machinery bring good prices. We still have good wheat pasture. Hogs bring 16c; butterfat, 71c; butter, 50c to 55c; eggs, 60c to 64c.—J. P. Nelson, Dec. 28.

Stafford County—Wheat pastures are covered with a heavy snow and stock is being supplied with other feeds. The east and west roads are impassable.—S. E. Veatch, Dec. 28.

FARMS WANTED.

I HAVE A GENERAL STORE LOCATED in good farming town which I would like to exchange for small farm, stock and tools, or would exchange for small farm out to wheat and pay difference. H. M., Farmers Mail and Breeze, Topeka, Kan.

TOBACCO HABIT.

TOBACCO OR SNUFF HABIT CURED OR no pay. $1 if cured. Remedy sent on trial. Superba Co., SY, Baltimore, Md.

MISCELLANEOUS.

ABORTION PREVENTED BY R. HAROLD, Manhattan, Kan.

PINTO BEANS, 100 LBS. F. O. B. HERE, $8.00. R. E. Hooper, Stratton, Colo.

KODAKERS—ANY SIZE ROLL FILM DEveloped and six prints made for 25 cents. E. J. Runner, Edgerton, Kan.

WANTED TO BUY HEDGE, LOCUST, MULberry and catalpa posts. Also locust and catalpa groves. Address Fence Posts, care Mail and Breeze.

AGENTS TO SELL AMERICA'S WAR FOR Humanity. Price $2.00. Agent's commission, 50 per cent. Sample outfit free. Mid Western Co., Topeka, Kan.

FARM LABOR—EXPERIENCED MAN WHO has boys desires place. Prefer stock farm for share of profits. Furnish references. Arthur E. Pruet, Junction City, Kan.

HIGH PRICES PAID FOR FARM AND dairy products by city people. A small classified advertisement in the Topeka Daily Capital will sell your apples, potatoes, pears, tomatoes and other surplus farm produce at small cost—only one cent a word each insertion. Try it.

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

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.

FREE—A 78 LB. HOG OILER, REGULAR price, $13.50, free. We want you to protect your hogs by using our germicidal, disinfectant, lice-killing, scruff preventing medicated non-freezable chemicoil. Keep this preventive agency with your hogs day and night. 50 gallon steel bbl. oil, regular price $30, and the oiler free. Number limited so order now. Saltonic Company, 21 South 21st St., Council Bluffs, Ia.

HANDLE MORE BUSINESS? ARE YOU getting all the business you can handle? If not get big results at small cost by running a classified ad in Capper's Weekly, The Great News Weekly of the Great West with more than a million and a quarter readers. Sample copy free for the asking. Only 8c a word each week. Send in a trial ad now while you are thinking about it. Capper's Weekly, Topeka, Kan.

More Crop Reporters Wanted

Crop reporters are needed in the following counties: Allen, Chase, Chautauqua, Comanche, Greeley, Jackson, Kingman, Lane, Pottawatomie, Rice, Smith, Stanton, Wallace, Washington, Wichita and Wyandotte. We will make an attractive offer to anyone who will act as crop reporter for the Farmers Mail and Breeze in these counties. For full information in regard to this work, address, John W. Wilkinson, Associate Editor, the Farmers Mail and Breeze, Topeka, Kan.

Farmers as Advertisers

Every sign indicates that one of the big advertisers of the future will be the farmer. Not only the farmer himself and his associates, but the independent distributors of his produce will advertise much more extensively than they do today.

How do we know this? Because we are beginning to find that the products of the soil need advertising as much as any manufactured commodity. For a long time it was thought they didn't have to be advertised or that they couldn't be advertised. Now we know better. There have been so many advertising successes in this field that there is no longer any doubt about the "advertisability" of farm products.

Advertising makes producers look more to their quality. It forces them to grade their produce, thus setting standards for the guiadance of the consumer. Advertising stabilizes the produce market because it established an equilibrium between supply and demand.—Printers Ink.

Milking Machines Save Labor

It may be that the dairyman, while labor is scarce, will have to rely on the milking machine. Milking machines have been on the market more than 25 years but some of them have not been successful. Machines are now on the market that are past the experimental stage and are giving the best of satisfaction in the hands of many users. The successful use by the many shows that the machine is all right when properly used. The milking machine saves a great deal of hand labor, making it possible for one man to milk 25 to 30 cows in an hour, altho extra time is required for cleaning the machine. The machine does not injure the cow in any way and animals prefer machine to hand milking. It is a question whether the cows milked with a machine hold up in milk toward the end of the milking period quite as well as when hand milked. It is possible that the yield for the year may be a little less. Apparently, the machine will do better work than poor hand milkers but it is not quite equal to skilled hand milkers.

When the machine is properly handled the quality of the milk with reference to its sanitary condition is better than when hand drawn. If the machine is not properly cleaned, then the milk is not in as good condition as that drawn by hand.

Prof. C. H. Eckles suggests that a farmer who expects to purchase a machine will do well, first of all, to visit some one using a machine of the kind he is considering, and see it in operation so that he may decide for himself whether he desires it. In buying a milking machine use the same common sense that would guide the buying of any machinery. It is safer to get a make that has been in use for some time, preferably three years at least, in order that defects may have been corrected.

It is doubtful whether a milking machine is practical for fewer than 30 cows. The cost of an outfit for this many cows will vary from $150 to about $450, but if it does its work successfully it is well worth the price.

Pigs and Alfalfa

To test the value of alfalfa pasture one of the experiment stations fed six lots of pigs about 2½ months old. They weighed approximately 55 pounds apiece in the beginning and were not marketed until they averaged 225 pounds.

The first five lots were pastured on alfalfa and were fed in addition as follows: Lot 1, one-half ration of shelled corn and meat meal tankage twice daily; lot 2, three-quarter ration of shelled corn and meat meal tankage twice daily; lot 3, shelled corn to the limit of appetite and meat meal tankage twice daily; lot 4, same as lot 3 but fed three times daily; and lot 5, shelled corn self-fed and meat meal tankage self-fed. Lot 6 was kept in a dry lot and given shelled corn self-fed.

The best returns were produced by Lot 5, which made faster gains on the smallest amount of both corn and tankage, requiring 3.74 pounds of concentrated feed a pound of gain. Lot 4 came next, with a requirement of 3.89 pounds feed a pound of gain, followed by lots 2 and 3.

The value of the alfalfa pasture in comparison with that of the concentrated feed saved was $30 an acre, and with one crop of hay cut the same season, the total value was $42 for the year.

Storing the Tractor

The high cost of tractors makes it advisable to store them for the winter with care. Be sure all water is drained from the cooling system and all fuel from the fuel tanks.

The last time the tractor is run, use heavy oil so as to coat the cylinders and pistons—a little oil might be poured thru the priming cocks. This will prevent rusting of the cylinders and pistons.

Where the exhaust pipe is vertical, with the exhaust end up, cover to keep water out. Clean grease and dirt off engine and all moving parts, and inspect whole tractor for breakage. All new parts should be ordered at once on account of the difficulty in obtaining them. This applies to all machinery.

To Develop the Colts

Present conditions demand that no time be lost between the birth of a foal and its maturity. Early maturity is necessary for quickest returns whether the animal is sold or retained on the farm where it was raised. For the best development of horse stock the foal should be well fed. It should be encouraged to eat early, and when it begins to nibble at the mare's feed a low feedbox should be erected out of the reach of the mother where the young animal can be fed regularly. A mixture of ground oats and bran, or a mixture of ground oats, ground corn and bran or oil meal, is a good feed during the summer and early fall.

The young colt must be encouraged to eat, exercise, rest and grow. If the mare and foal are turned to pasture, exercise and rest are provided naturally. Altho grass is provided, the foal should receive grain—a mixture of crushed oats and bran, or crushed oats, corn and bran—once or twice daily, either in a creep in the pasture, or to be fed in the barn, unless the mare is a heavy milk producer. If the mare must work, keep the foal in a well-fenced lot or paddock, or in a good box stall that is ventilated and well lighted. The colt should not follow the mare at work.

Careful management of the mare is essential while she is suckling her foal. She should not be given too rich food, turned too suddenly to pasture, or brought in too hot and tired to her hungry colt. An evenly regulated supply of milk, uniform in quantity and quality, is needed. To secure such a flow of milk the mare's feed should be regulated. Avoid sudden changes of any kind and shield her from too exhausting work. Probably the best feeds for the mare are corn, oats, bran, mixed clover and prairie or alfalfa hay. The mare and her foal should have access to water and salt whenever possible.

By weaning time the colt should be eating grain and grass or hay. Under careful management there will be little trouble in weaning the foal. The mare and colt should be separated and the mare milked by hand to prevent caking of the udder. In the meantime the colt should receive plenty of feed and water, and should be kept in a well-fenced lot, paddock, pasture, or a good box stall where there is plenty of fresh air and where exercise comes naturally.

Topeka Fair Has Money

At a meeting of the Kansas Free Fair association at the office of L. M. Penwell, president, last month, Secretary Eastman asserted that the attendance at the Kansas Free Fair in Topeka last fall was estimated at 265,000 persons, this figure showing an increase of more than 185,000 over the first free fair in 1915 and fully 18,000 more than the attendance in 1917.

Secretary Eastman's report for the year showed that the Kansas Free Fair association has paid off two-thirds of its before-the-free-fair indebtedness and that it has $3,347.45 cash on hand with which to meet the preliminary expenses of the 1919 Kansas Free Fair.

The receipts from the Kansas Free Fair of 1918, according to Eastman's financial report, totaled $76,624.16. This sum includes the $5,000 cash balance on hand after all bills were paid in 1917, the state appropriation of $15,000 and the county premium fund of $21,016.

The report on disbursements shows that a total of $52,260.71 exclusive of the premium fund was paid out, leaving the cash balance on hand for next year of $3,347.45.

Committees named at the meeting of the stockholders of the Kansas Free Fair association last month are: W. E. Atchison, A. M. Patten, A. A. Alderfer, committee on nominations; and Frank P. MacLennan, J. B. Billard, D. J. McAllister, committee on credentials.

Residents of South Dakota may complain about the high cost of living, but a letter from Charles Swanfield, in Sweden, indicates that other people also have their troubles. Swanfield formerly lived near Sioux Falls.

A cow in Sweden now costs $750, he said, and other prices are approximately as follows: Riding horses, $1800 each; chickens, $12.20 each; cabbages, $1.50 a head, and other vegetables in proportion.

LIVESTOCK SERVICE

Of the Capper Farm Papers

T. W. MORSE
Director and Livestock Editor

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NOTICE TO LIVESTOCK ADVERTISERS.

The War Industries Board has directed publishers to discontinue sending out all free copies, sample copies and exchanges.

Publishers are permitted to mail to advertisers only such issues of the paper as contain their advertisements.

We are compelled, therefore, to suspend entirely our complimentary list.

PUREBRED STOCK SALES.

Horses.

Feb. 20-21—Nebraska Pure Bred Horse Breeders' Ass'n Sale, Grand Island, Neb. C. F. Way, Lincoln, Neb., sale manager.

Draft Horses

Mch. 3. 4—W. T. Judy & Sons, Kearney, Neb.

Jacks and Jennets.

Mch. 25—H. T. Hineman & Sons, Dighton, Kan.

Shorthorn Cattle.

Feb. 14—H. E. Huber, Meriden, Kan.
Feb. 19—C. C. Jackson, Westmoreland, Kan.
March 5-6—South West Nebraska Shorthorn Breeders' Ass'n, Cambridge, Neb. W. E. McKillip, Mgr.
Mch. 26-27—Highline Shorthorn Breeders' Ass'n, Moe Hicks, Mgr., Farnam, Neb.
Apr. 16—Blank Bros. & Kleen, Franklin, Neb.
Apr. 17—Andress and Shallenberger, Cambridge, Neb.

Hereford Cattle.

Jan. 7—Mousel Bros., Cambridge, Neb.
Jan. 8—E. C. Rodwell, Mousel Bros., et al., Cambridge, Neb.
Jan. 8—(evening) S. S. Griffith & Son, Cambridge, Neb.
Jan. 9—Blackwood & Wilkinson, Edison, Neb. Sale at Oxford, Neb.
Jan. 25—Carl Miller, Belvue, Kan.; sale at Kansas City.
Jan. 29—Nebraska Polled Hereford Breeders' Ass'n; sale at So. Omaha; Boyd Radford, Newark, Neb., sale manager.
Feb. 22—C. F. Behrent, Norton, Kansas.
Mch. 4, 5 and 6—American Hereford Breeders' Ass'n. Sale at Kansas City; R. J. Kinzer, Sec'y.
Mch. 7—Kansas Hereford Breeders' Ass'n at Alma, Kan.; Emmet George, Sec'y, Council Grove, Kan.

Holstein Cattle.

Jan. 14—Henry C. Glissmann, Sta. B. Omaha, Neb.
Jan. 18—B. E. Totten, Farmdale Ohio, at Topeka, Kan. Ben Schneider, Nortonville, Kan., manager.
Jan. 18—B. E. Totten, Farmdale, Ohio, Topeka, Kan.; Ben Schneider, Sale Mgr., Nortonville, Kan.
Feb. 11—Nebraska Holstein Breeders' Consignment Sales Co., Dwight Williams, Mgr., South Omaha, Neb.
Feb. 12—Leavenworth county consignment sale (high grades) Leavenworth, Kan., W. H. Mott, sales manager, Herington, Kan.
Feb. 13—Leavenworth county breeders sale, Leavenworth, Kan., W. H. Mott, sales manager, Herington, Kan.
Feb. 15—W. H. Boughner, Downs, Kan.
Feb. 15—U. S. Disciplinary Barracks, Farm Colony, Leavenworth, Kan.
Mch. 12—E. S. Engle & Son, Abilene, Kan.
Mch. 25—Kansas Holstein Breeders' Ass'n Sale, Topeka, Kan. W. H. Mott, Mgr., Herington, Kan.
Mch. 26—A. B. Wilcox & Sons, Topeka, Kan. W. H. Mott, Herington, Kan., sale manager.

Polled Durham Cattle

Mch. 3, 4—W. T. Judy & Sons, Kearney, Neb.

Poland China Hogs.

Jan. 14—H. T. Hayman, Formoso, Kan.
Jan. 28—Frank L. Downie, Hutchinson, Kan.
Jan. 29—Adams & Mason, Gypsum, Kan.
Jan. 30—J. J. Hartman, Elmo, Kan., in Abilene, Kan.
Feb. 1—H. E. Myers, Gardner, Kan.
Feb. 1—J. H. Brown, Selden, Kan. Sale at Oberlin, Kan.
Feb. 4—W. E. Willey, Steele City, Neb.
Feb. 5—Thos. F. Walker & Son, Alexandria, Neb.
Feb. 6—Smith Bros., Superior, Neb.
Feb. 7—Willis & Blough, Emporia, Kan.
Feb. 7—Frank J. Rist, Humboldt, Neb.
Feb. 10—Otto A. Gloe, Martel, Neb.
Feb. 11—O. B. Clemetson, Holton, Kan.
Feb. 11—B. E. Ridgley, Pickrell, Neb.
Feb. 12—J. M. Barnett, Denison, Kan.
Feb. 18—O. E. Wade, Rising City, Neb.
Feb. 18—F. Olivier & Sons, Danville, Kan.
Feb. 19—A. J. Erhart & Sons, Ness City, Kan. Sale at Hutchinson, Kan.
Feb. 20—Ross & Vincent, Sterling, Kan.
Feb. 21—Bruce Hunter, Lyons, Kan.
Feb. 22—C. F. Behrent, Norton, Kansas.
Feb. 26—Clarence Dean, Weston, Mo., sale at Dearborn, Mo.
Mch. 3, 4—W. T. Judy & Sons, Kearney, Neb.

Spotted Poland China Hogs.

Feb. 18—Everett Hayes, Manhattan, Kan.

Chester White Hogs.

Feb. 11—Arthur Mosse, Leavenworth, Kan.
Feb. 27—Henry Murr, Tonganoxie, Kan.

Duroc Jersey Hogs

Jan. 9—J. O. Bayne & Son, Aurora, Neb.
Jan. 20—Theodore Foss, Sterling, Neb. (Night sale.)
Jan. 20—Dave Boesiger, Courtland, Neb.
Jan. 21—C. C. Dee, Tecumseh, Neb.
Jan. 21—J. T. Whalen & Son, Cortland, Neb. Night sale, at Lincoln, Neb.
Jan. 22—Geo. Briggs & Son, Clay Center, Neb.
Jan. 23—F. J. Moser, Goff, Kan., at Sabetha, Kan.
Jan. 23—Farley & Harney, Aurora, Neb.
Jan. 24—H. D. Gelken, Cozad, Neb. Night sale, at Gothenburg, Neb.
Jan. 24—H. E. Labart, Overton, Neb.
Jan. 25—Proett Bros., Alexandria, Neb.
Jan. 28—W. R. Huston, Americus, Kan.
Jan. 28—H. W. Swartsley & Son, Riverdale, Neb.
Jan. 29—H. C. Holt & Sons, Kearney, Neb.
Jan. 30—A. C. French, Lexington, Neb.
Jan. 30.—C. T. White, Lexington, Neb.
Feb. 3—D. L. Wallace (night sale), Rising City, Neb.
Feb. 4—R. Widle & Son, Genoa, Neb.
Feb. 4—A. J. Turinskey, Barnes, Kan.
Feb. 5—F. E. Gwin & Sons, Morrowville, Kan., at Washington, Kan.
Feb. 6—A. L. Wylie & Son and W. W. Jones, Clay Center, Kan.
Feb. 7—Kansas Duroc Jersey breeders Asso. sale, Manhattan, Kan.
Feb. 12—Earl Babcock, Fairbury, Neb.
Feb. 12—W. A. Williams, Marlow, Okla.
Feb. 13—Milton Poland, Sabetha, Kan.
Feb. 13—Finerty Farms, Oklahoma City, Okla.
Feb. 13—C. B. Clark, Thompson, Neb.
Feb. 14—W. W. Zink, Turon, Kan.
Feb. 17—R. E. Steele, Falls City, Neb.
Feb. 18—E. P. Flanagan, Chapman, Kan.
Feb. 18—John C. Simon, Humboldt, Neb.
Feb. 19—T. P. Moren, Johnson, Neb.
Feb. 19—John W. Jones, Minneapolis, Kan., at Salina, Kan.
Feb. 20—B. R. Anderson, McPherson, Kan.
Feb. 21—Mott Bros., Herington, Kan.
Feb. 26—John W. Petford, Saffordville, Kan.
Feb. 26—Gordon & Hamilton, Horton, Kan.
Feb. 27—W. W. Otey & Son, Winfield, Kan.
Feb. 28—R. E. Mather, Centralia, Kan.
Feb. 28—Wooddell & Danner, Winfield, Kan.
Mch. 3, 4—W. T. Judy & Sons, Kearney, Neb.
Mch. 3—Lester Coad, Glen Elder, Kan.
Mch. 4—W. H. Schroyer, Miltonvale, Kan.
Mch. 7—J. A. Bockenstette, Fairview, Kan., at Hiawatha, Kan.

Hampshire Hogs.

Feb. 3—Lindgren & Nider, Jansen, Neb. Sale at Fairbury, Neb.
Feb. 28—Carl Schroeder, Avoca, Neb. Sale at Nebraska City, Neb.

Sale Reports.

N. Kan. and S. Neb. and Iowa

BY JOHN W. JOHNSON.

S. D. Seever, Smith Center, Kan., is advertising in this issue of the Farmers Mail and Breeze four Hereford bulls from nine to 14 months old. They are good ones and he will price them right. Write him at once for descriptions and prices. Look up his advertisement in this issue of the Farmers Mail and Breeze.—Advertisement.

Henry Murr, Tonganoxie, Kan., Leavenworth county, is advertising in the Chester White section of the Farmers Mail and Breeze, some big, stretchy, well grown Chester White boars. Also his bred sow sale, Feb. 27. This sale will be advertised in the Farmers Mail and Breeze. If you want a boar worth the money write him quick.—Advertisement.

Last Call Hayman's Sale.

H. T. Hayman, Formoso, Kan., Jewell county, will sell a draft of Poland China bred sows at his farm near that place Jan. 14. In this sale he will sell 45 head regardless of the weather. There will be both tried sows and spring gilts of outstanding breeding and individuality in the sale. It is a splendid offering and you should plan to be there. You can still get the catalog by phoning or wiring for it. But go anyway and you will be pleased with the offering.—Advertisement.

Hereford Bull Values.

Because he wants the feed and room for last season's crop of calves, Wm. Acker, the Hereford breeder of Vermillion, Marshall county, Kan., is making quick selling prices on his larger bulls. He can furnish a carload, or in numbers to suit, including four that especially are recommended to head purebred herds. Mr. Acker's advertisement in this issue shows plainly that buyers will find values, both in breeding and individuality. Mention Farmers Mail and Breeze when you write or see him.—Advertisement.

Holsteins at Private Sale.

M. E. Peck & Son, Salina, Kan., offer Holsteins at private sale in their advertisement in the Farmers Mail and Breeze this week. They have both registered and high grade cows and heifers for sale and offer to sell their entire herd. Some of them are fresh now and others will be fresh during the next 30 or 40 days. It is a real opportunity to buy good Holsteins from responsible people. Fair prices will be put on them and you better get in touch with them and get their prices and descriptions before you buy elsewhere.—Advertisement.

Olson's Shorthorns.

Theo. Olson & Son, Leonardville, Kan., Riley county, start their Shorthorn advertisement again in this issue of the Farmers Mail and Breeze. They offer 10 head of good range and farm bulls ranging in ages from seven to 15 months old. They are good useful bulls of good breeding, and while they have not been pushed like the bulls are that command much larger prices, they are nevertheless good prospects and will be priced very reasonable. Seven of them are by Big Defender, a good son of Barmpton Knight. Two are by Sultan, a grandson of Villager, and out of a dam sired by a good son of Whitehall Sultan. As stated above these bulls are for sale at very attractive prices and visitors are welcome. Look up the advertisement in this issue of the Farmers Mail and Breeze.—Advertisement.

Holsteins at Auction.

B. E. Totten, Farmdale, Ohio, will sell 75 registered and high grade Holstein cows and heifers at the sale pavilion, the fair grounds, Topeka, Kan., Jan. 18. The offering consists of about 40 cows in milk, 10 open heifers and only two or three bulls. The rest will be heifer calves. Mr. Totten has made arrangements with Ben Schneider, Nortonville, Kan., to manage the sale for him. Mr. Schneider writes that some of the heifers will be bred to a son of Rag Apple Korndyke 8th and that all of it is first class. C. M. Crews, the well known auctioneer, has been engaged to do the selling and he will be assisted by Frank Regan, of Nortonville, Kan. Ben Schneider, who will manage the sale, is well and favorably known to Holstein breeders all over the west. Topeka has good railroad facilities.—Advertisement.

Nearby Herd Bull Supply.

There is a sermon in this brief advice from a successful Kansas Shorthorn breeder to his son-in-law, succeeding him to the active management of the herd: "For 25 years I have bought herd bulls of Tomson Bros., and have had no disappointments. You will not need to change." This breeder had found that in case he was attracted by any special line of breeding he could secure it thru the Tomson herd more safely than by going outside the state. In a herd like the Tomson herd the best strains are sure to be brought together, tested and developed. One not only gets herd bull satisfaction by going there; he gets education and inspiration. Address (or visit) either Dover, Kan., (via Willard) on the Rock Island or Carbondale on the Santa Fe. There is a Tomson herd at each place as you will see by advertisement in this issue. Mention Farmers Mail and Breeze in writing.—Advertisement.

A Big Sale Circuit.

A. J. Turinsky, Barnes, Kan., will sell Duroc Jersey bred sows in the "big four" circuit of north central Kansas Duroc Jersey bred sow sales. In fact he starts the ball rolling at Barnes, February 4, with a crack offering of 44 splendid spring gilts and four tried sows. The day following Gwin Bros. sell in Washington, which is but a few miles from Barnes. On the sixth, which is the day following the Gwin Bros. sale, A. L. Wylie & Son and W. W. Jones, both of Clay Center, will join forces in a sale of bred sows at that place. It will be two drafts from two splendid herds. On the seventh, which is the day following the Clay Center sale, the association sale of bred sows at Manhattan and the annual meeting of the association with a big banquet in the evening will close the circuit. These sales will be advertised in the Farmers Mail and Breeze in a few more issues and every Duroc Jersey breeder in the state should attend the association sale and meeting and should come early and take in the three great sales preceding it.—Advertisement.

Big Leavenworth County Holstein Sales.

Leavenworth, Kan., invites Holstein people to be her guests Feb. 13-14-15, and on each of those dates big Holstein sales will be held. On the 13th the day will be devoted to selling high grades and this sale has been promoted by the county agent, Mr. Chapman. On the 14th the day will be taken up with a big sale of registered cattle. This is a Leavenworth county movement and everyone interested in good Holsteins should be there. W. H. Mott, Herington, Kan., who is the popular Holstein sales manager, has been engaged and will have the management of the sale. On Saturday, the 15th, the U. S. Disciplinary barracks will sell about 40 registered Holsteins in the riding pavilion at the barracks. Included in this offering will be 8 cows that Captain Fisk recently refused $8,000 for. It will be three great days for Holstein people and you should plan now to attend. You can ask W. H. Mott, sales manager, Herington, Kan., to book you for a catalog now and you will get it just as soon as it is off the press. These sales will all be advertised in the Farmers Mail and Breeze.—Advertisement.

Miller Herefords Jan. 25.

The attention of those of the Farmers Mail and Breeze readers who are interested in Hereford cattle is especially called to the public sale of "Miller Herefords" in the livestock pavilion, near the livestock exchange at Kansas City, Mo., Saturday, Jan. 25. The advertisement appears in this issue of the Farmers Mail and Breeze and if you are at all interested you better look it up now and write for the catalog today. One hundred head will be sold, consisting of 70 females and 30 bulls. Twenty-five will be open heifers and 50 bred two-year-old heifers and young cows. There will be a number of young calves at foot by such sires as Gay Lad 9th, who is himself a grand champion and the sire of the grand champion female at the International in 1917 and 1918. He is also the sire of highest priced American bred female ever sold at public auction in America. He is a wonderful sire and a good picture of him appears in the advertisement in this issue. Sir Paul 387866, by Beau Premier, an intensely Anxiety bred bull, will be represented by a good share of the offering and the great Laredo Boy, a line bred Beau Donald bull, will have his share of the good ones in the sale. Sons of Gay Lad 9th, one of Beau Blanchard and one by Woodford's 5th, and bulls by Laredo Boy and Sir Paul. The bull offering is one of good useful bulls and they will be in the best condition to prove profitable. The sale is the same week as the western stock show at Denver and arrangements will be made to have a thru sleeper from Denver to Kansas City to accommodate buyers and those attending the sale at Kansas City. You can write today for the catalog. Address Carl Miller, Belvue, Kan. Look up the advertisement in this issue and mention the Farmers Mail and Breeze when you write for the catalog.—Advertisement.

S. W. Kansas and Oklahoma

BY A. B. HUNTER

Walter Shaw, Route 6, Wichita, Kan., was never before so well able to supply his customers with Hampshire sows, gilts and young service boars. They are from the best strains, are nicely belted, all immuned and every customer is guaranteed satisfaction. Write him for prices. He will please you both on quality and price. Please mention Farmers Mail and Breeze.—Advertisement.

Nebraska and Iowa

BY JESSE R. JOHNSON

Crocker's New Herd Boar.

F. C. Crocker, of Filley, Neb., in a recent letter writes: "We recently purchased the noted herd boar, Gano the Great, from Fred Steinbaugh, of Yutan, Nebraska. Our crop of spring pigs are mostly sired by Bader's Golden Model 2nd, Big Lincoln, Valley Chief, Freiday's Jumbo Critic, Valley Chief Col. Our crop of 250 spring gilts that we will have to offer to the trade are now being mated to boars of the Critic, Col. and Pathfinder blood lines. As you may know our policy has always been to breed for size and bone, and Gano the Great is a remarkable producer of this sort of stuff. We think he fits very well with our type of breeding."—Advertisement.

Proett Bros.' Great Duroc Offering.

On Saturday, January 25, following a number of important Duroc Jersey sales, Proett Bros., of Alexandria, Neb., will sell one of the greatest offerings of sows and gilts that will be sold this winter. They are all bred to the outstanding good young boars, Orion King Orion and Pathfinder 2nd. The offer-

ing contains a great variety of the choicest breeding with a big per cent of the Orion Cherry King and Pathfinder breeding. Proett Bros. have been heavy buyers at many of the leading Eastern sales and they have never hesitated to buy at the top and often put these top animals right back into their own sales. The animals that sell in this sale have lots of scale and finish, and will be properly conditioned for usefulness. This sale should attract the attention of the best breeders and farmers of the territory.—Advertisement.

Briggs & Sons' Orion Duroc Sale.

The writer has for years had the pleasure of inspecting annually, and writing advertising concerning the Duroc Jersey offerings that have sold in Geo. Briggs & Sons' annual bred sow sales. It seems each season that the offering is better than any that have preceded it. This year is no exception and added to the extra size and better conformation is more new breeding for the Briggs's customers than they have been offered for some time. Most of this season's offering was sired by the great breeding boar, Joe Orion 5th, probably the greatest breeding son of the $5,000 undefeated champion, Joe Orion 2nd. Others by Jack Orion 2nd and Pal's Giant, both boars of proven ability. About 25 head will be bred to the outstanding good young boar, Joe Orion Jr. The Briggs offerings are always so uniformly good that it seems almost out of place to speak of the different individuals. But there will be many in the sale worth mentioning. The catalog gives the best and most reliable abstract of breeding, etc., and the best way to get posted on the offering is to write at once for catalog.—Advertisement.

Men and Durocs.

You often hear it said "It makes lots of difference who owns a boar." The statement is absolutely true. An outstanding good herd boar in the hands of some men is after all an ordinary animal. But a great boar owned by a man with the sterling character and sound judgment, a man like Theo. Foss, of Sterling, Neb., will render great service to the breed to which it belongs. This thought is brought out because of a recent visit to the farm of Mr. Foss and another study of the type and general conformation of his great young boar, Disturber of Idlewild. Mr. Foss is one of the breeders that has gone slowly, at times almost plodded, on the road to fame as a Duroc breeder but today few of the older breeders of Nebraska have such a boar in service as the boar mentioned, and the great line of sows and gilts to which he is mating this boar for his Jan. 20 sale indicate the skill and patience of a man willing to advance slowly toward a chosen goal. Mr. Foss will hold a sale the night of Jan. 20, following Dave Boesiger. The sale will be held in a big ,well lighted, comfortable pavilion and the occasion will be one of profit as well as pleasure to every farmer and breeder who takes the time and trouble to attend.—Advertisement.

Nebraska and Iowa

BY WILLIAM LAUER

The Farley & Harney Duroc Sale.

Farley & Harney, Duroc Jersey breeders, of Aurora, Neb., advertise a big annual bred sow sale to be held on Jan. 23. The offering of fifty head will comprise tried sows, fall yearlings and spring gilts. Sired by a great line of herd sires. Among them will be tried sows by Pathfinder and several tried sows that are full sisters to their great herd boar, Primrose Col. Three spring gilts belong to the third prize futurity litter shown at the Nebraska State fair last fall. Some by Great Sensation, King Orion and many by Primrose Col. Much of the offering has been bred to Primrose Col., others to Col. Sensation, Great Sensation 2nd and many to the splendid young sire, Orion Cherry King 2nd. Remember this is a good offering and write early for catalog.—Advertisement.

Labart's Duroc Attractions.

No sale of the season deserves more the attention of the best breeders and farmers than does the sale of H. E. Labart, of Overton, Neb. The date is Jan. 24. Last summer Mr. Labart bought the entire herd belonging to H. A. Deets, of Kearney. This purchase makes it possible for him to put thru the sale ring on the above date the greatest line of tried sows that ever went thru a sale ring in this part of Nebraska. They are daughters of noted sires and most of them will be bred to King Sensation, a boar that stands second to no boar in the whole country. If size and other good points, such as feet and legs, count he has no equal. Others will be bred to The King, one of the best breeding Orion Cherry King boars going. Some to Big Sensation and other sires. Some of the offering was sired by Deet's Illustrator 2nd, some by Pathfinder, The King, King Sensation and Grand Model 31st. Write now for catalog.—Advertisement.

Geiken's Night Duroc Sale.

No greater Duroc event of the winter will be staged than the big night sale to be made by H. D. Geiken, of Cozad, Neb. The date is Jan. 24 (at night), following the Labart sale at Overton. On the date mentioned Mr. Geiken will sell a great lot of tried sows and gilts, many of them bred to his $3,500 boar, Grand Model I Am. The boar that, in the opinion of good judges, would have been grand champion of Nebraska this year but for the fact that he was crippled in shipping. He is a boar of great merit and will make some Duroc history yet. Most of the remainder of the offering will be bred to the boar, Nebraska Model, bought at a long price because of the injury to the boar above mentioned. Others will be bred to Bader's Smooth Sensation, one of the good Sensation boars of the state. Many of the choice gilts in the sale are also bred to this boar. The offering includes daughters of The King, Great Wonder, Sensation Wonder 4th and other boars of like note.—Advertisement.

Breeders Started at the Top.

Most men that engage in the business of breeding registered stock begin their operations by buying more or less inferior animals. As time goes by they learn the folly of buying anything but the best, but for the first few years they have but little high class seed stock for sale. Occasionally there is a man or firm that reverses this rule and starts out boldly to buy the best that money can buy. J. T. Whalen & Son, Duroc Jersey breeders, of Cortland, Neb., belong to the latter type. Last winter they were heavy buyers at about all of the best sales held in the West and always their purchases were around the top. They bought outstanding good sows and gilts, bred to boars of character and prestige. Now the gilts raised from these sows and some of the sows themselves are to make up a sale for this progressive firm. The sale is to be held at the State Farm, Lincoln, Neb., the night of Jan. 21. The sows that go in this sale will be mated to the high priced herd boars that have been bought by this firm. They are Good Orion, the young boar bought from W. M. Putman last summer for $3,500; Orion Cherry Jack, a $1,500 Orion Cherry King boar that has already made a reputation as a sire, and Over The Top Orion, a great son of the grand champion, King Orion Jr. Readers of this paper should have a catalog of this offering. Write for it and mention this paper.—Advertisement.

Duroc Sows Bred to Real Boars.

Dave Boesiger & Son, one of Nebraska's biggest and most progressive Duroc Jersey breeding firms, will hold their annual bred sow sale on Monday, Jan. 20. The sale will be held in the big pavilion right on the farm. Everything will be done for the information and comfort of the breeders and farmers of different states who will assemble for the purpose of seeing and buying seed stock from this great herd. The high quality, condition and general merit of this great offering will be in splendid keeping with the conditions under which the sale will be held and the manner in which the Boesigers conduct their breeding and selling operations. Dave Boesiger several years ago laid the foundation for what one day would be one of the greatest herds in America. He has been content to wait until what he started out to do was accomplished and until the public should awake to the fact. To the minds of his friends and good judges he has risen well toward the topmost round. The offering that goes thru the sale ring on the date mentioned will be bred to a pair of as good boars as ever was owned in one herd. They are the grand champion, Kerns Sensation, and Improved Pathfinder, one of the greatest sons of Pathfinder. The catalog tells the story of blood lines and the sows show for themselves sale day.—Advertisement.

Platte Valley Duroc Sow Circuit.

An event of yearly interest in Duroc Jersey breeders' circles is the Platte Valley bred sow sale circuit. Get catalogs as per following advice: Swartsley & Son, of Riverdale, Neb., open the circuit this year with a sale in their home town. The date is Jan. 28 and they sell 55 head of tried sows and spring gilts. A big per cent of them are sired by and bred to their great young boar, Long Critic, winner of second in class at Nebraska state fair and champion boar at their district fair. Many are sired by Sensation Wonder 4th, Orion King E. Smooth Sensation and Cherry Chief's Pathfinder, a son of Pathfinder with a Cherry Chief dam. This boar has done good service in the Swartsley herd. The offering is well grown and the best the Swartsleys have ever put in any one sale. H. C. Holt & Sons sell the day following, Jan. 29, with an offering worth the attention of farmers and breeders of the territory. They sell in a warm pavilion in town of Kearney. Everything in the sale will be bred to their great pair of herd boars, Holt's Real Sensation, an outstanding good son of Big Sensation, and Great Orion's Col., the $1,200 son of the $6,000 world's champion, Great Orion. The offering is well grown and carries the blood of the Illustrators, High Chief and other well known sires. They will be presented in good breeding form and should be appreciated. A. C. French, of Lexington, Neb., holds the third place in the circuit and will sell on Thursday, Jan. 30, on his farm near that place. He sells 45 head bred to his great Orion Cherry King boars. Orion E, a son of the noted boar, Orion King E, with a dam by the grand champion, Critic B. The other one is Orion Cherry, a son of Cherry King Orion, with a dam by Disturber of Idlewild. The offering is by such boars as

FARMERS MAIL & BREEZE
ENGRAVING DEPARTMENT
TOPEKA, KANSAS
CUTS OF YOUR LIVESTOCK FOR LETTERHEADS & SALE CATALOGS

HAMPSHIRE HOGS.



SHAW'S HAMPSHIRES
200 head Messenger Boy breeding. Bred sows and gilts, service boars, fall pigs, all immune, satisfaction guaranteed. WALTER SHAW, R. 6, Phone 3918, Derby, Kan. WICHITA, KAN.

Hampshires On Approval
Won highest honors at Kansas state fairs, 1918. For sale: Boars and gilts weighing 225. Gilts open or bred to a champion. Fall pigs, either sex, in pairs and trios. I ship on approval.
F. B. WEMPE, FRANKFORT, KANSAS

MESSENGER BOY BREED
Service boars. Spring boars and gilts. Weanling pigs. F. T. Howell, Frankfort, Kansas.

CHESTER WHITE OR O. I. C. HOGS.

KANSAS HERD OF CHESTER WHITE SWINE
Fall boar pigs and a few spring boars left. Bred sow sale February 11th.
Arthur Mosse, Route 5, Leavenworth, Kan.

Sunflower Herd Chester White
swine offers 20 head of large type boars and gilts 4 months and older. Registered free.
Lloyd Cole, Route 5, North Topeka, Kansas

Big Stretchy Chester White
Summer and fall boars. Sows bred to Prince Tip Top, first prize junior yearling, Topeka, 1918, at Public Auction, Feb. 27. Henry Murr, Tonganoxie, Kan.

F. C. Gookin, Russell, Kan. is in the draft and must dispose of his Chester Whites. Herd sows, herd boar, spring pigs, both sexes. Address as above.

Chester Whites 15 good gilts and a few boars for sale. E.E.Smiley, Perth, Kan.

30 O. I. C. Sow Pigs
Big smooth kind. Harry W. Haynes, Grantville, Kan.

O. I. C. PIGS. September farrow. Ready to ship. E. S. Robertson, Republic, Missouri.

DUROC JERSEY HOGS.

Woody's Durocs
A fine bunch of spring gilts for sale; King's Col., Pathfinder, Uneeda Model, Gano and Orion breeding, bred for March farrow to Pathfinder Orion, the largest, smoothest young boar in Kansas. Price, $50 and $60. Some extra good fall pigs, either sex, $20 each. All immune and pedigree furnished.
Henry Woody, Barnard, Kan.

UNEEDA HERD
Durocs and Holsteins
"Size and Quality Kind." Heavy boned, high backed and high classed "Golden Chief" April boars, wt. 150 to 200 lbs., and not fat; prices low. Two extra good registered bull calves, 11 and 4 months old; ¾ white and beauties; but few better at double our price. Also a bargain in a good 11-months-old roan Shorthorn bull. Write us at once.
TYSON BROS., McALLASTER, KANSAS

John's Orion 42853 (a)
400 spring pigs. 200 boars by Grand Wonder 6th, Gano's Masterpiece 2nd and other noted bloodlines. It will pay you to come if you want the best. All vaccinated double treatment.
F. E. GWIN & SONS
Morrowville, Kan., Washington County

ROYAL HERD Farm Durocs
BOARS sired by ROYAL GRAND WONDER, ROYAL PATHFINDER and HIGH ORION. If you want the good kind, I have them. Write or come now.
B. R. Anderson, McPherson, Kansas

Duroc-Jerseys
For Sale—One extra good spring male by grandson of World's champion sow, St. Louis. Extra good weanlings by grand son of Orion Cherry King, REGISTERED. Out of well bred sows.
G. FINK, HIATTVILLE, KANSAS.

Duroc Gilts, Bred Or Open
Combining the most up to date breeding. Remember I sold the highest priced gilt sold in Kansas in 1918, in the Breeders Combination sale at Clay Center, Kan., for $270.00. Will breed these gilts to Big Pathfinder. Satisfaction guaranteed.
G. F. KEESECKER, WASHINGTON, KAN.

MUELLER'S DUROCS
Special prices on bred gilts, bred to King Colonel Again Jr. for April litters. Also on pigs 3 months old for the next 30 days.
Geo. W. Mueller, Route 4, St. John, Kansas

DUROC JERSEY HOGS.

Bancroft's Durocs
Bred gilts $65. Tried sows $75. March boars weighing 180 to 210 pounds $45. Guaranteed immuned and sows and gilts safe in pig. Pairs and trios not related of choice Sept. pigs $20 each. Express prepaid on pigs, and recorded pedigree with each animal sold.
D. O. BANCROFT, OSBORNE, KANSAS

DUROC BOARS OF QUALITY
Choice March boars, sired by the great herd boar, Reed's Gano, first prize boar of Kansas and Oklahoma State fairs. Also Illustrator 2nd, and Golden Model. Fine growthy boars, well built and nice color. All immuned. Priced to sell quickly.
JOHN A. REED & SONS, LYONS, KANSAS

DUROC BOARS—FARMER'S PRICES
Immunized Spring Boars, best of blood lines, rugged fellows, some good enough to head good herds, but all go at farmer prices. At the price asked they will not last long. Write today.
G. B. WOODDELL, WINFIELD, KANSAS.

McComas' Durocs
Big roomy herd sows, daughters and granddaughters of up to date grand champions on both sides, with litters by champion and sons of champions. If you want spring boars and gilts, something good, write
W. D. McCOMAS WICHITA, KANSAS

Otey's Duroc-Jerseys
Thirty head of big, rugged early spring boars priced at 25% reduction for immediate sale. These are good and must go soon. Write, wire or come.
W. W. OTEY & SON, WINFIELD, KANSAS

40 Duroc-Jersey Boars
Cholera immuned and of rare breeding and excellent individuality. Grandsons of the two grand champion boars of Iowa. None better. Special prices to close them out.
W. R. Huston, Americus, Kan., Lyon County.

SHEPHERD'S DUROCS
FORTY BIG TYPE BOARS, sired by the 1000 pound King's Col. I Am and the $3000 King's Col. Jr. The dams of these are 600 to 800 pound sows sired by some of the most noted boars of the breed.
G. M. SHEPHERD, LYONS, KANSAS

JONES SELLS ON APPROVAL
Very choice spring boars sired by King's Col. 6th and out of Orion Cherry King dams. Write for further descriptions and prices.
W. W. JONES, CLAY CENTER, KANSAS

CHOICE SPRING BOARS
I have a few good ones for sale. Keep in mind my Bred Sow Sale, January 23, Sabetha, Kansas.
F. J. MOSER, GOFF, KANSAS

Fifteen Immuned Duroc sows and gilts bred to Great Wonder Model, first prize junior yearling at Topeka and Hutchinson, 1918, for March and April litters. Registered and priced right. HOMER DRAKE, Sterling, Kansas.

HARRISON'S DUROC JERSEYS
Sows and gilts bred to farrow in March from champion boars and sows. W. J. Harrison, Axtell, Kan.

Duroc-Jersey Boars and Gilts with up to date breeding. We can furnish pairs and trios not related.
R. T. & W. J. GARRETT, Steele City, Neb.

CHOICE IMMUNED DUROC-JERSEY
boars for service. FRANK HAYNES, Grantville, Kan.

DUROC JERSEY HOGS. DUROC JERSEY HOGS.

WIRE FOR DUROC BOAR



Wire at once at my expense for Duroc boar to be shipped before you pay for him. We guarantee pedigree, price, size, bone, length, immunity and a breeder. Send him back if not satisfied. You can't afford to wait.
F. C. Crocker, Box B, Filley, Nebraska

J. H. Brown's Fifth Annual
Poland China Bred Sow Sale
Will be held in Oberlin, Kan.,
On Saturday, January 18, 1919
instead of on Feb. 1 as previously planned.
We offer 34 head consisting of 2 tried sows, 26 gilts all bred, and 6 real herd header boars. All cholera immune and strictly big type. More prize-winning blood than any herd this far west. There are many attractions. Our sows are large and prolific weighing up to 900 pounds. We extend the glad hand, and a hearty welcome to all. Catalogs are ready. Usual terms and accommodations.
J. H. Brown, Owner, R.F.D. 5, Selden, Kan.
Col. George F. E. Sotton, Col. C. M. Bobbit, Auctioneers.
H. O. Douglas, Clerk.

KANSAS STATE AGRICULTURAL COLLEGE FEB 4 1919 LIBRARY

POLAND CHINA HOGS.

Pig Club Poland Chinas

15 sows and gilts sired by Logan Price and out of sows by the champion, A Wonderful King, and bred to Olivier's Big Tim. Any sow or gilt that dies farrowing will be replaced free of charge.

F. Olivier & Sons,
Danville, Kansas

POLAND CHINA BOARS

The get of these great sires: Our Big Knox, Blue Valley Timm, Walter's Jumbo Timm, and Gathsdale Jones. Gilts reserved for our bred sow sale.

Willis & Blough, Emporia, Kansas.

Big Price Reduction on Poland China Boars

40 big, stretchy, big boned Poland China boars, priced $50 to $75. All immuned, with best of big type breeding. Order from this ad., we will select to suit you. We ship on approval, or C.O.D. We refund your money and pay return express charges, if not satisfactory. Fall boar pigs $25 each. On two spring yearlings, one fall yearling and 3 toppy herd boar prospects write for information.
G. A. Wiebe & Son, R. 4, Box M, Beatrice, Neb.

BRED SOWS, $60, $65

BIG-TYPE POLANDS

Fine big stretchy spring gilts out of 600 to 800 lb. sows and 1000 lb. boars. Bred for March and April farrow, registered and guaranteed to please. They are worth $100 but for the next 30 days $60 and $65 each. First check gets the pick. Fall pigs, $29 each; 3 for $55.
S. E. Wait, Blue Mound, Kansas

POLAND CHINAS

All ages, either sex. Bred sows, fall and spring gilts, 140 fall pigs. Some herd boar prospects here. Herd headed by Rist's Long Model, first prize senior yearling Nebraska State Fair, 1918. Everything double treated.
PLAINVIEW HOG & SEED FARM, Frank J. Rist, Prop., Humboldt, Nebraska

75 Extra Good, Big Boned Poland

China pigs, the best of big type breeding. Some real herd boars and show prospects. Can furnish big stretchy boars and gilts, no relation. A few bred sows and a few boars, everything immuned and satisfaction guaranteed in every way, priced reasonable. Write me.
ED. SHEEHY, HUME, MISSOURI.

BIG TYPE POLANDS

For sale, a few big gilts, either bred or open, sired by Jumbo Timm and Col. Bob; also a few boars of same litters. Also an extra fine March yearling sired by Jumbo Timm. **SULLIVAN BROS., MORAN, KAN.**

20 Head of Big, Smooth Fall

yearlings, spring gilts and a few tried sows that have had one litter. Also a few spring boars sired by Big Tecumseh, priced to sell.
E. M. Wayde, Rte. 2, Burlington, Kansas.

CAPTAIN BOB

Have forty sows and gilts for sale, most of which are bred to this good son of the World's grand champion. Boars of all ages always for sale.
FRANK L. DOWNIE, R. D. No. 4, Hutchinson, Kan.

Old Original Big Boned Spotted Polands

Spring boars, bred gilts, fall pigs.
ARTHUR SPENCER, TESCOTT, KAN.

ERHART'S BIG POLANDS

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250 pound, a Big Wonder. All immune.
A. J. ERHART & SONS, NESS CITY, KAN.

CHOICE SPRING BOARS

also two extra good yearling boars. Sired by Spotted Duke and Moser's 5th. Spot, out of sows by Spotted Jumbo; Brandywine and Spotted King. I am pricing these boars in line with their breeding and individuality. No sows or gilts for sale.
O. S. JOHNSTON, BONNER SPRINGS, KANSAS.

BIG POLANDS

Registered Spring boars sired by Grandee.
LOREN TOWNSLIN, CONCORDIA, KAN.

Boars For Sale From Sunnyridge Herd

sired by Big Bobby Wonder 78405 and Blue Valley Timm Jr. 85662, out of big smooth sows. Priced to move them. **W. A. PREWETT, Asherville, Kansas**

SPOTTED POLANDS for sale, with blood lines running back to famous herds. Spring boars and fall pigs.
FAILER & MILLER, ROSSVILLE, KANSAS

WEANLING PIGS $20 00 Delivered to
SPRING PIGS $40.00 your station.
E. Cass, Collyer, Kansas.

OLD ORIGINAL SPOTTED POLANDS. Sept. pigs, $15 each, three for $40.
Claude Hamilton, Garnett, Kansas.

HORSES.

Percheron Stallions

A nice lot of good young stallions, sired by Algarve, a 2300 pound sire, and by Bosquet, an international grand champion. Priced to sell.
D. A. HARRIS, GREAT BEND, KANSAS

Ton Belgian Stallion

For sale; 8 years. Black Jack, 4. Cheap if taken soon. **Wm. Crome, Bremen, Kansas.**

Disturber of Idlewild, King Sensation, Top Sensation Jr. and the great breeding boar, Crimson Illustrator 2nd. This will be a great offering in every way. C. T. White & Son close the circuit on Friday, Jan. 31, selling on the farm near Lexington, Neb. They sell about 45 head of well grown gilts and mature sows nearly all bred to their great young boar, King Orion Cherry Jr., a grandson of Orion Cherry King. Others are bred to Illustrator 5th, a son of Deet's Illustrator 2nd. The offering was sired by such boars as Big Sensation, Great Sensation, Top Sensation and some by Waldo's Golden Model. The Whites also sell twenty head of extra choice registered Shropshire ewes bred to a registered buck, by an imported sire. This sale should be attended, along with the others of the circuit. Write each of the above firms for sale catalog and mention the Farmers Mail and Breeze.—Advertisement.

S. E. Kan. and Missouri

BY C. H. HAY

Horses, Jacks and Jerseys.

C. L. Henman, Route 2, Halls, Mo., holds a public sale of stallions, jacks and other livestock at Maple Grove Stock Farm, January 8. His farm is one mile south of Halls and ten miles southwest of St. Joseph, Mo. The offering includes Percherons, German Coach, standard bred stallions, 7 jacks and 11 head of Jersey cows and heifers. Write Mr. Henman for description and particulars.—Advertisement.

Real Holstein Values Here.

The Holstein dispersion sale announced by O. O. Groves, of Lawrence, Kan., for January 17, is one of the season's opportunities to buy real producers. Mr. Groves has one of the most thoroly developed working herds in his part of the state and it is only an entire change of business and a removal from the farm which makes the herd available to buyers. In this genuine dispersion sale, 50 head of high grade Holsteins headed by a purebred bull will be sold at auction. Buyers not only will see from the cattle themselves that they are the real "milk machines" but records and tests will be available to show what this herd is doing right along every day as a money making proposition. Of the 50 head, 38 are giving milk. Twenty-three of the 38 will soon be fresh again, the last one of the 23 being due to calve by the first of April. Mr. Grove states that many cows in his herd have produced from 50 to 60 pounds of milk a day under strictly business dairy conditions. This and other points proving the herd to be a practical money making institution are very important, especially to buyers of foundation stock. Please read carefully the half page advertisement of this sale and write for any information which the advertisement does not give you. The sale is being managed by F. J. Searle, a widely known Holstein breeder of Lawrence, Kansas, who is helping Mr. Grove in this emergency and of whose judgment prospective buyers may well avail themselves.—Advertisement.

The Week's Market Report

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

Wheat—No. 1 dark hard, nominally $2.34@2.37; No. 2 dark hard, nominally $2.31@2.32; No. 3 dark hard, sales $2.25@2.27; No. 4 dark hard, sales $2.18@2.19; No. 5 dark hard, sales $2.10@2.15.

No. 1 hard, sales $2.35; No. 2 hard, sales $2.30@2.31; No. 3 hard, sales $2.25@2.28; No. 4 hard, sales $2.16@2.21; No. 5 hard, sales $2.08@2.14; sample hard, sales $2.00.

No. 1 red, nominally $2.40@2.42; No. 2 red, sales $2.38@2.40; No. 3 red, sales $2.37; No. 4 red, sales $2.36.

No. 1 mixed, sales $2.33; No. 2 mixed, sales $2.18.

Corn—No. 2 mixed, nominally $1.52½@1.54; No. 3 mixed, sales $1.51½@1.52½; No. 4 mixed, nominally $1.49@1.51, sales $1.50; No. 5 mixed, sales $1.47; No. 6 mixed, sales $1.45.

No. 2 white, nominally $1.52@1.54; No. 3 white, sales $1.50@1.51; No. 4 white, nominally $1.49@1.50, sales $1.49; No. 5 white, nominally $1.54@1.56.

No. 2 yellow, nominally $1.54@1.56; No. 3 yellow, nominally $1.52@1.54, sales $1.53; No. 4 yellow, nominally $1.50@1.51½, sales $1.51; No. 5 yellow, sales $1.49@1.49½.

Ear corn, sales $1.51½.

Oats—No. 2 white, nominally 72½@73c; No. 3 white, sales 72c; No. 4 white, nominally 71½@72c.

No. 2 mixed, nominally 71@72c; No. 3 mixed, nominally 71@71½c; standard, sales 72c.

No. 2 red, nominally 77@79c; No. 3 red, nominally 76@77c.

Kafir and Milo—No. 2, nominally $2.72@2.78; No. 3, nominally $2.70@2.75.

Rye—No. 2, nominally $1.49@1.50.

Barley—No. 4, nominally 98c@$1.00, sales 99c; billing, $1.02; No. 3, sales 99c.

Bran—Nominally, sacked, $2.30@2.35.

Shorts—Nominally, sacked, $2.45@2.60.

Mixed Feed—Nominally, sacked, $2.40@2.45.

Corn Chop — Nominally, sacked, $3.00@3.10.

Hogs—Bulk, $17.10@17.50; heavy, $17.00@17.60; packers and butchers, $17.20@17.60; lights, $16.90@17.40; pigs, $9.00@13.00.

Cattle—Prime fed steers, $18.00@20.00; dressed beef steers, $13.00@18.00; western steers, $12.00@16.00; southern steers, $7.00@13.00; cows, $7.00@14.00; heifers, $8.00@14.50; stockers and feeders, $7.50@16.00; bulls, $7.00@9.50; calves, $7.00@13.50.

Sheep — Lambs, $12.00@15.00; yearlings, $11.00@12.00; wethers, $9.50@11.00; ewes, $8.00@9.25; stockers and feeders, $6.50@16.00.

Hay—Alfalfa, choice, $32.00@33.00; No. 1, $30.00@31.50; standard, $25.00@29.50; No. 2, $22.00@25.00; No. 3, $15.00@21.50.

Prairie, choice, $27.50@28.50; No. 1, $25.00@27.00; No. 2, $20.00@24.50; No. 3, $11.00@19.50.

Midland prairie, No. 1, $19.00@20.00; No. 2, $10.00@18.50. Lowland prairie, No. 1, $13.00@15.00; No. 2, $6.00@12.50.

Timothy, No. 1, $28.00@28.50; standard, $16.50@23.50; No. 2, $24.00@26.00; No. 3, $16.50@23.50.

Clover, mixed, light, $27.50@28.50; No. 1, $25.00@27.00; No. 2, $17.50@24.50. Clover, No. 1, $26.00@27.00; No. 2, $15.00@25.50.

Packing hay, $6.00@10.00. Straw, $10.00@11.00.

Silos save and serve.

HORSES.

Get Them While You Can



Draft Stallions and Mares Imported and Home-bred.

Belgians, Percherons, Shires

Coming 2, 3, 4 and 5-year-olds and a few aged stallions, including our champions and prize winners. They have extra bone, weight, quality and breeding. No better lot ever assembled in one barn Come and see them. Our prices, terms and guarantee will suit you.
WOODS BROS. COMPANY, LINCOLN, NEB.
Barns Opposite State Farm. A. P. COON, Mgr.

Percherons—Belgians—Shires



Registered mares with colts at side and bred again; registered fillies, stallions 1 to 5 yrs. old; grown ourselves the ancestors for 5 generations on dam side; sires imported. **Fred Chandler, R. 7, Charlton, Iowa. Above Kansas City.**

THREE PERCHERON STALLION weanlings for sale. Casino breeding.
Percy E. Lill, Mt. Hope, Kansas.

SHEEP.

We Have For Sale 70 Head

of extra high grade Shrop yearling ewes for sale bred to registered Shrop rams, to commence lambing the 25th of January; also yearling and ram lambs. Come and see them if you want good ones.
J. R. Turner & Son, Harveyville, Kansas



FOR SALE

A bunch of big heavy-wooled young registered Shropshire ewes, not high in price. Bred to fine rams.
Howard Chandler, Charlton, Iowa

Having Sold My Farm, I will sell my

flock of black face bred ewes, 1 to 4 years old; also a few high grade Holstein cows.
V. E. CONWELL, WETMORE, KANSAS

Registered Shropshire Yearling Ewes

bred to high qualitied imported sires. Also yearling rams. Prices reasonable. **E. S. LEONARD, Corning, Ia.**

LIVESTOCK AUCTIONEERS AND SALE MANAGERS.

Auctioneers Make Big Money

How would you like to be one? Four weeks term opens Jan. 6, 1919. Tuition $85. Life scholarship. Write for free Annual; 59 photographs.
Missouri Auction School
(Largest in World) 818 Walnut, Kansas City, Mo.

HOMER T. RULE

LIVESTOCK AUCTIONEER. Write or wire for dates.
REFERENCES: Mail & Breeze, fieldmen and breeders for whom I have sold.
HOMER T. RULE, OTTAWA, KANSAS

W. H. Mott, Sales Manager

Compiling catalogs, Pedigree reading at the sale and a general knowledge of conducting public sales enables me to render valuable assistance to parties holding registered or high grade Holstein sales. For terms and dates address, **W. H. MOTT, Herington, Kansas.**

L. R. Brady, Manhattan, Kan.

specializing in the management of public sales of all beef breeds. An expert in every detail of the public sale business. Not how much he will cost but how much he will save. Write today. Address as above.

JOHN SNYDER, HUTCHINSON, KANSAS, Livestock Auctioneer
Experienced all breeds. Wire, my expense.

Jas. T. McCulloch, Clay Center, Kan.

My reputation is built upon the service you receive. Write, phone or wire.

JACKS AND JENNETS.

World's Fair Jack Blood

50 jacks from weaners to 6 yr. 60 good big registered jennets bred to "Kansas Chief," our world's fair grand champion jack. We won all first premiums offered on jacks at the Kansas State Fair this fall. Can sell you as good a jack as grows. Annual sale March 25th.
H. T. Hineman & Son, Dighton, Kan.

LARGE BLACK JACK, coming five-year-old; registered.
Fred Corley, Westphalia, Kansas

HEREFORD CATTLE. HEREFORD CATTLE.

Top Bulls; Selling Prices

They will sell to the first good judge of Herefords who comes here looking for Bulls.

A carload of yearlings and twos for sale in numbers to suit purchaser. Uniform, heavy bodied, thick fleshed and well marked. Half of them out of dams by the 2750-pound Abercrombie; others by famous sons of Beau Brummel and Don Carlos.

Some choice herd bull material here (note especially Nos. 37, 42, 45 and 47 on my bull list) but no fancy prices asked.

These bulls are mostly by Crown Prince, by a double Young Beau Brummel bred sire, and out of a daughter of the champion Beau Carlos. Abercrombie, sire of most of the dams, was by the champion bull, Climax, and out of a daughter of the champion, Wild Tom.

This ad appears but once. Come now, or write—

Wm. Acker, Vermillion, Marshall Co., Kan.

Spring Creek Herefords

4 Hereford bulls for sale from 9 to 14 mos. old. I price them to sell.
S. D. Seever, Smith Center, Kansas.

PLEASANT VIEW STOCK FARM
HEREFORDS and PERCHERONS

Thirteen yearling bulls, well marked, good colors, weight 1200 pounds; also some early spring calves, weight 600 pounds. Can spare a few cows and heifers, bred to my herd bull, Domineer, a son of Domino. Also some Percheron stallions from weanlings to 2-year-olds, black and greys.
Mora E. Gideon, Emmett, Kansas

Clear View Hereford Farm

Some good registered Hereford cows, heifers and bulls for sale. Priced for quick sale.
C. E. Dieffenbaugh, Mgr., Talmage, Kansas

For Sale Cheap

3 registered Hereford bulls, 3 registered bred cows, 4 registered heifers; also 2 Belgian mares. **C. D. Wolfe, Flagler, Colorado.**

Ocean Wave Ranch

Nine registered Hereford bulls for sale; well marked, dark red, Anxiety 4th breeding.
A. M. PITNEY, BELVUE, KANSAS

ABERDEEN ANGUS CATTLE.

Sutton Angus Farms

For sale: 50 heifers, 18 months old, bred and open. 20 two-year-old heifers bred. 35 bulls, serviceable ages.
SUTTON & WELLS, RUSSELL, KANSAS

FROM WORKMAN RUSSELL, KANS.

Angus Cattle—Duroc Hogs
C. H. Sparks, Sharon Springs, Kansas, can furnish my bulls for northwest Kansas.
Johnson Workman, Russell, Kan.

EDGEWOOD FARM ANGUS CATTLE for sale. 50 cows, 15 bulls.
D. J. White, Clements, Kansas.

GUERNSEY CATTLE.

Guernsey Cattle Cheap

Four cows now in milk and one bull ready for service—all registered. Offered at sacrifice price. Come and see them. Write
H. E. Hostetler, Harper, Kansas

JERSEY CATTLE.

Hillcroft Farms' Jerseys

Herd headed by Queen's Fairy Boy, a Register of Merit bull out of a Register of Merit dam, by Raleigh's Fairy Boy, an undefeated champion. Sire of more R. of M. cows than any other imported bull. Write for pedigree. **M. L. Golladay, Prop., Holden, Mo.**

Sunny Slope Farm Jerseys

A few very choice young bulls out of register of merit dams. Investigate our herd before you buy. **J. A. COMP & SON, WHITE CITY, KANSAS, (Morris County).**

Jerseys For Sale

20 registered Jersey cows and heifers, some fresh, some springing.
GEO. E. HINEMAN, DIGHTON, KANSAS.

POLLED JERSEY CATTLE. Breeders' names, sale dates, etc. **Chas. S. Hatfield, Secretary, Box 54, Route 4, Springfield, Ohio.**

BROWN SWISS CATTLE.

ALPINE FARM DAIRY

BROWN SWISS BULL

calves from good producing dams at reasonable prices. Write for particulars.
Dahlem & Schmidt, R. 2, El Dorado, Kansas

HOLSTEIN CATTLE.

Registered and High Grade HOLSTEINS

75 Head to Be Sold by B. E. Totten, Farmdale, Ohio

At the Fair Grounds in the Pavilion

Topeka, Kansas, Jan. 18

The offering consists of registered and high grades. There will be about 40 cows in milk, 10 open heifers and only two or three bulls and the rest will be heifer calves. Some of the heifers are bred to a son of Rag Apple Korndyke 8th.

Ben Schneider, Nortonville, Kan., Manager
Write him for catalog or any other information about the sale.

B.E. Totten, Owner, Farmdale, Ohio

Auctioneers: C. M. Crews, Topeka, Kan., Frank Regan, Nortonville, Kan.

HOLSTEIN CATTLE.

"Right Now" Holstein Bargains

BULLS, COWS NEAR CALVING, REGISTERED HEIFERS; 200 HEAD.

The 20 bulls afford an opportunity to select herd bull material at very fair prices. Would also sell old herd bull (he has a 23-pound dam) at a low price. These are real bull values. Some extra good young springing cows priced to sell. 100 good yearling heifers bred to freshen this spring that I want to sell. Bred to registered bulls. 95 registered cows and heifers for sale. When looking for quality and milk production come to the **Hope Holstein Farm.** Mo. Pacific, Santa Fe and Rock Island.

HOPE HOLSTEIN FARM
Address, M. A. Anderson, Prop., Hope, Dickinson County, Kan.

A PRIVATE SALE HOLSTEINS — HOLSTEINS

We will sell our entire herd of Holsteins, consisting of registered cows and heifers, also high grade cows and heifers. Some fresh now and others to freshen in forty days or less. Registered bulls, any age, and best on the market. Write or wire for full particulars.

M. E. Peck & Son, Salina, Kansas

1887. J. M. Lee brought the first Holsteins to Kansas. 1919. Lee Bros. and Cook have the largest herd of Holsteins in the West.

BLUE RIBBON HOLSTEINS

3 BRED HEIFERS AND A REGISTERED BULL $350

200 Holsteins—Cows, Heifers and Bulls—200

We sell dealers in Kansas, Oklahoma, and Texas. Why not sell direct to you? 25 fresh cows, 75 springing cows and heifers, 40 open heifers, 25 purebred bulls, one 34 pound bull, one 30 pound bull, one 27 pound bull and one 24 pound bull, all priced to sell. We also have an extra nice bunch of purebred cows and heifers most all A. R. O. with records up to 27½ pounds. Bring your dairy expert with you, we like to have them come. Calves well marked high grade either heifers or bulls from 1 to 6 weeks old, price $30 delivered to any express office in Kansas, Oklahoma or Texas. We invite you to our farms, come to the fountain, we lead others follow. Herd Tuberculin tested and every animal sold under a positive guarantee. We have a few choice purebred bulls and heifer calves from Fairmount Johanna Pietertje 78903, one of the best BULLS in the U. S. A. A calf from him will start you on the road to prosperity. The war is over and Victory won, get into the Milk business. Butterfat 75 cents per pound, Milk $4 per hundred. **LOOK AT OTHER HERDS THEN LOOK AT OURS.**

LEE BROS. & COOK, HARVEYVILLE, Wabaunsee Co., KANSAS
Wire, Phone or write when you are coming. Write for Beautiful Catalog. It will be mailed free.

United States Disciplinary Barracks Farm Colony

REGISTERED HOLSTEIN BULLS

1 to 12 months. Good, straight, well-marked calves, mostly from A. R. O. dams and excellent sires. Price, $50.00 up. Write for particulars, or come and visit our dairy department and see for yourself.

UNITED STATES DISCIPLINARY BARRACKS, FARM COLONY, BOX G, FORT LEAVENWORTH, KANSAS.

SUNFLOWER HERD

Headquarters for herd bulls, hand picked and no culls. Several ready for service. Big, fine individuals with lots of breeding. Visit my herd and make your selection, or write for full particulars. Also young bull calves of the very best producing blood lines.

COME TO LAWRENCE for your herd sire.

F. J. SEARLE, LAWRENCE, KAN.

Registered Holstein Heifer

$125 buys a calf, 2 months old, ⅝ white. Sire, Pontiac breeding. Her dam is untested, but is a good milker; would make 25 pounds easy; G- dam's record 28 pounds as a 4-year-old. Also a 25 pound grandson of Rag Apple Korndyke, 1 year old for sale cheap.

LOUIS C. ROHLFING, Lawrence, Kansas

ALBECHAR HOLSTEINS

A few young bulls, of good breeding and individuality and of serviceable age, for sale. Write for prices to

Albechar Holstein Farm
Robinson & Shultz, Independence, Ks.

4 High-Grade Holstein Cows

3 Holstein heifers, 1 fine 2-year-old Holstein bull from Canary Butter Boy King, gentle and quiet, not registered. Also De Laval cream separator, No. 15, nearly new. **Mrs. H. Buchenan, R. 3, Abilene, Kan.**

DR. L. E. SHAY'S FARM

offers registered Holsteins, two-year-old and yearlings, bred heifers, also one bull 8 months old ⅞ white, royally bred. ADDRESS ALL CORRESPONDENCE TO **DR. L. E. SHAY, ATCHISON, KANSAS.**

VALLEY BREEZE HERD

A grandson of world's record cow. Also A. R. O. bulls ready for service.
ORIN R. BALES, LAWRENCE, KANSAS

HOLSTEIN CATTLE.



HOLSTEINS IN AMERICA.

The Holstein-Friesian breed of dairy cattle has been established in this country nearly 50 years and has made good from the Atlantic to the Pacific. The breed has long been used to improve the dairy qualities of the cattle of Europe. It is in demand also in Canada, Mexico, Australia, New Zealand, South Africa, Japan, Argentine, Central America, and other countries, and holds all records for largest yield of milk and butter. They are large, strong, vigorous, prolific, and productive cattle, and succeed under all climates and conditions.

If interested in

HOLSTEIN CATTLE

Send for our booklets—they contain much valuable information.
Holstein-Friesian Association of America, Box 292, Brattleboro, Vt.

Bonnie Brae Holsteins

Grand sons of King Segis Pontiac, from high producing dams, old enough for service.
IRA ROMIG, STA. B, TOPEKA, KANSAS.

DO YOU WANT

104 pounds milk per day in the pedigree of your herd sire? We are offering some splendid calves with that kind of backing. For full description and prices write
A. B. WILCOX & SON, R. 7, TOPEKA, KANSAS

Registered Holstein Friesian

bulls ready for service; from 25 to 28 pound dams; also some cheaper ones from untested cows. World record blood lines.
G. A. HIGGINBOTHAM, ROSSVILLE, KAN.

BRAEBURN HOLSTEINS

Service bulls. Their heifers will outyield the dams 10-50%. Surplus females sold.
H. B. COWLES, 608 Kan. Ave., Topeka, Kan.

HIGH-GRADE HOLSTEINS

Heavy springing, 3-year-old heifers, will freshen within 30 days; also some January springers and a few fresh cows priced to sell. **W. P. Perdue, Carlton, Kan.**

Holstein Bulls Registered

Some out of A. R. O. dams, some sired by Sir Rag Apple Superba No. 207682.
LILAC DAIRY FARM, R. 2, Topeka, Kan.

HOLSTEIN BULLS

For Sale: 1 purebred and registered; good size; good form and well marked; age 15 months. 1 grade, age 12 months. **Larned State Hospital, Larned, Kan.**

CHOICE HIGHLY-BRED HOLSTEIN

Calves; 12 heifers and 3 bulls, 6 to 8 weeks old, nicely marked, from heavy producing dams, $25 each. Safe delivery guaranteed. **Fernwood Farms, Wauwatosa, Wis.**

A. R. O. BULLS

for sale, some ready for service. Satisfaction guaranteed. **Ben Schnieder, Nortonville, Kan.**

Young Registered Holstein Bulls with good A.R.O. backing. **H. N. Holdeman, Meade, Kansas**

RED POLLED CATTLE.

SIMPSON'S Red Polls

Husky young bulls of A. R. and prize-winning ancestry for sale.

O. F. SIMPSON, HAMILTON, MO.

LAST SON OF CREMO 23061

This herd bull for sale. Also a nice string of yearling bulls by him and some younger. Also cows and heifers. Address,
Ed. Nickelson, Leonardville, Kansas
(Riley County)

LARGE DEEP-FLESHED RED POLLS

We now offer a few bulls from our big milk cows.
CHAS. L. JARBOE, QUINTER, KANSAS

Pleasant View Stock Farm

Registered Red Polled cattle. For sale: a few choice young bulls, cows and heifers. **HALLOREN & GAMBRILL, OTTAWA, KANSAS.**

Foster's Red Polled Cattle 15 Young Bulls. 15 Bred Cows and Heifers. Priced Right. **C. E. Foster, Eldorado, Kan.**

POLLED DURHAM CATTLE.

POLLED DURHAMS

(Horniess Shorthorns)



25 BULLS $100 TO $500

Roans and reds. Halter broke. Roan Orange, weight 2500 lbs. in flesh, and 3 other choice bulls in service. We crate, deliver at Pratt, furnish both certificates and transfers, meet trains and return free. Phone at our expense.
J. C. BANBURY & SONS, PRATT, KANSAS

FOR SALE Another good wheat and stock farm. Write for description. Also 35 head 2-yr-old red Durham, milk strain heifers.
A. C. BAILEY, KINSLEY, KANSAS.

Double Standard Polled Durhams young bulls of Scotch breeding for sale. Herd headed by Forest Sulton. **C. M. HOWARD, HAMMOND, KAN.**

DAIRY SHORTHORN CATTLE.

PURE BRED DAIRY SHORTHORNS

Double Marys (pure Bates), and Rose of Sharon families. Some fine young bulls. **R. M. ANDERSON, Beloit, Kan.**

SHORTHORN CATTLE.

1886—TOMSON SHORTHORNS—1918

Sires in Service: VILLAGE MARSHAL, BEAVER CREEK SULTAN, IMP. LAWTON TOMMY.

200 high class Scotch cattle of the most popular families; also a limited number of the best Scotch topped sorts.

FOR SALE NOW

20 Extra good Scotch bulls of serviceable age.
15 Scotch cows and heifers, bred or with calves at foot.
10 Scotch topped cows with calves at foot.

Our large number of select cattle offers an unusual opportunity for the beginner to select such foundation stock as he should start with and for the breeder to make additions that will strengthen his herd.

TOMSON BROTHERS

CARBONDALE, KAN. (Ry. Sta., Wakarusa, on Santa Fe.)
DOVER, KAN. (Ry. Sta., Willard, on Rock Island.)

Park Place Shorthorns

Bulls in service. **Imp. Bapton Corporal** and **Imp. British Emblem** (1st in senior yearling class, American Royal 1918). High class Scotch and Scotch topped cattle, most popular families, cows, heifers and young bulls, the kind that will strengthen your herd. Write or call on

PARK E. SALTER, Fourth Nat'l Bank Bldg., Phone Market 2087 WICHITA, KANSAS

Ten Head Shorthorn Bulls

Seven to 15 months old. They are good farm range bulls. Inspection invited. Very reasonable prices on them.

Theo. Olson & Son, Leonardville, Kansas

Eight Shorthorn Bulls

15 to 18 months old. A fine lot. Reds and nice big fellows in fine condition for service. All are registered and priced worth the money. Write for descriptions. Farm eight miles north of Abilene. Individuals, breeding and price will suit you.
J. E. BOWSER, ABILENE, KANSAS.

STUNKEL'S SHORTHORNS

For sale now: 20 bulls 12 to 18 months old, reds and roans, most all sired by CUMBERLAND DIAMOND out of cows by VICTOR ORANGE and STAR GOODS. Some herd bull material among them. Prices $125 to $300. Come and see them. Can ship over Rock Island and Santa Fe.

E. L. STUNKEL, PECK, KANSAS

SHORTHORNS Three young Scotch bulls, herd headers; 20 young bulls suitable for farm or ranch use. **J. M. Stewart & Son, Red Cloud, Neb.**

SUNFLOWER

SHORTHORNS

Herd headed by Maxwalton Rosedale. Some extra good young bulls and a few females for sale. **J. A. PRINGLE, Eskridge, Kansas, R. R. Station, Harveyville, 25 Mi. S. W. Topeka.**

HUNT BROS.' SHORTHORNS

We have 20 head of Shorthorn bulls for sale, from 6 to 18 months old, reds, roans and whites. Some of these are Scotch topped, all are good individuals.
HUNT BROS., BLUE RAPIDS, KANSAS.

SHORTHORN CATTLE.

SYCAMORE SPRINGS SHORTHORNS



Master of the Dales

Headed by one of the highest ranking sons of Avondale, as proven by pedigree and production.

RICHEST OF BREEDING. Requiring Ancestry Excelling Both in Performance and Individuality.

PLAINEST OF CARE consistent with proper development of form, size and reproductive ability.

Material for herd bulls and herd foundations for sale. A range of values to meet a variety of needs. Send for catalog and private sale lists, mentioning Farmers Mail and Breeze.

H. M. HILL, LA FONTAINE, KANSAS

Salt Creek Valley Shorthorn Cattle

Pioneer Republic County Herd Established in 1878

For Sale: 20 bulls from 6 to 18 months old. Also special pure Scotch herd bull offer. **20 cows and heifers** bred to pure Scotch bulls. All Scotch tops and some nearly pure Scotch.

A choice lot of reg. **Poland China boars** and gilts for sale. Strictly the big kind.

E. A. Cory & Sons, Talmo, Kan.

PLEASANT VIEW STOCK FARM

Quality Shorthorns

For sale: Four bulls, two straight Scotch and two Scotch-topped. Also a few cows. Bulls ready for service. Also breed reg. Duroc Jerseys. Address,

M. R. Peterson, Prop., Troy, Kan.

Meuser & Co's Shorthorns

90 reds and roans. 30 mi. S. W. of Wichita. Cows carry blood of Victor Orange, Choice Goods and Imp. Collynie. Herd headed by a great grandson of Imp. Collynie and a grandson of Avondale. Some nice young bulls ready for service.

WM. L. MEUSER, MGR., ANSON, KAN.

Shorthorns

A few great young bulls by **Auburn Dale 569935.** Reds and roans. Also a few choice heifers by **Village Knight 398231.** Also two or three young cows with calves at foot and bred back.

Wm. Wales & Young, Osborne, Kansas.
(Osborne County)

CEDAR LAWN Shorthorns

Offers choice Scotch and Scotch topped bulls from six to 15 months old. A pleasure to show our herd. Write for prices and descriptions.

S. B. Amcoats, Clay Center, Kan.

SHORTHORNS

1 fine roan bull 14 mo. old, 6 roan and red bulls 6 to 9 mo. old.

CHARLES HOTHAN, SCRANTON, KAN.

Disturber of Sterling Sale

Adams, Nebraska, Monday, January 20

Night Sale

Disturber of Sterling is one of the greatest Duroc Boars now doing service in any herd.

40 GREAT FEMALES that go in this sale will be bred to him and **A TOP PATHFINDER** one of the greatest sons of the Mighty Pathfinder. The females that go in this sale have been bred on my farm and are just the type and carry the blood lines to nick properly with this great pair of sires. They represent the greatest families in Duroc history. Write me for catalog and attend this sale along with other sales of the circuit. Mention Mail and Breeze when writing.

Theodore Foss Sterling, Neb.

AUCTIONEERS: N. G. Kraschel, W. M. Putman

Send bids to Jesse R. Johnson representing Mail and Breeze in my care.



THEODORE FOSS

Shorthorn Bulls

16 bulls from 6 to 10 months old, got by two splendid Scotch bulls and out of Scotch topped cows of good scale. Not highly conditioned; sure to do well in your hands. Prices very reasonable. Address,

V. A. PLYMOT, BARNARD, KAN.
(Farm in Mitchell county)

Valley View Stock Farm

SHORTHORNS

10 bulls 10 months old. Reds and roans by Diamond Searchlight 208837 by old Searchlight. Some choice cows and heifers bred to **Victoria's Baron** by Secret Baron.

POLAND CHINAS

10 cracking good March boars sired by Timm 3d by Big Timm. Out of mature sows.

R. B. DONHAM, TALMO, KANSAS
Republic county.

Good Shorthorn Cattle

20 Scotch topped cows, 3 to 8 years old, bred or with calves at foot and some rebred. 10 Scotch topped heifers, bred. 15 choice yearling heifers. 3 yearling bulls. **Will Sell Carload, Or What You Want.**

O. E. Torrey, Towanda, Kan.

Horse & Jack Sale, Saturday, Jan. 18

at 12 o'clock, noon, at the Maple Grove Stock Farm, 10 miles southwest of St. Joseph, Mo., and 1 mile south of Halls, all of my Breeding Stock, consisting of the following: 1 Percheron Registered Stallion, weight 2,000 pounds; 1 Imported German Coach Horse; 1 Standard Bred and Registered Trotting Horse, record 2:20; 7 Jacks: 2 are 6 yrs. old, 3 coming 5 yrs. old, 1 coming 4 yrs. and 1 coming 3 yrs. old. All Jacks but one are broke to serve, are extra good breeders and are all black with white points; 11 Head of Jersey Cows and Heifers, all heavy in calf, will be fresh in February and April. All that are not registered can be.

Terms of Sale—Six months without interest if paid at maturity; if not, to bear interest at the rate of 6 per cent from date of sale. 2% off for cash. Lunch will be served by the Ladies Aid Society of Halls. A conveyance will be at depot to meet morning trains.

C. L. Henman, Route 2, Halls, Missouri

Col. Chas. J. Foster, Auctioneer. Fred M. Allison, Clerk.

Orion Cherry King and Pathfinder Duroc Sow Sale

Alexandria, Neb., Saturday, January 25

THE GREATEST COLLECTION OF ORION CHERRY KING and PATHFINDER BREEDING TO BE FOUND IN ANY ONE SALE OF THE WINTER.

45 HEAD. Daughters of ORION CHERRY KING, JR., PROUD COL., PATHFINDER, CHERRY WONDER, KING THE COL., A PATHFINDER, PATHFINDER 2nd., ORION KING ORION, GREAT ORION, JACK'S ORION, AVIATOR and UNEDA GIANT.

THIS SELECT OFFERING REPRESENTING THE MOST POPULAR PRIZE WINNING BLOOD LINES OF THE BREED WILL BE BRED TO AND SAFE IN PIG TO OUR GREAT BOARS

Orion King Orion and Pathfinder 2nd

THE CATALOG GIVES BREEDING AND DESCRIPTIVE FOOT NOTES OF EVERY ANIMAL SELLING. WRITE FOR IT AND MENTION THIS PAPER.

Proett Bros., Alexandria, Neb.

Auctioneers: Col. N. G. Kraschel, Col. W. M. Putman. Fieldman: Jesse R. Johnson.

Other sales of the circuit are: Dave Boesiger & Son, Theo. Foss, J. T. Whalen & Son, Farley & Harney, Geo. Briggs & Son, H. E. Labart and H. D. Geiken.

Miller Herefords

100 HEAD

The one opportunity to procure **Echo Lads** and **Echo Lasses** as only such sires as **Gay Lad 9th** and **Laredo Boy** can produce.

Sale in the fine stock pavilion, near the live-stock exchange, beginning at 12 o'clock prompt,

Kansas City, Mo.
Saturday, Jan. 25



Gay Lad 9th, himself a grand champion, and the sire of the grand champion females at the International in Chicago in 1917 and 1918.

The offering will consist of 100 head—70 females and 30 bulls. There will be 25 open heifers; 50 bred 2-year-old heifers and young cows, about 10 calves at foot by such sires as **GAY LAD 9th,** a grand champion himself and the sire of the 1917 grand champion female at the International at Chicago, and also the sire of the 1918 grand champion female at Chicago, and also the sire of the highest priced American bred female ever sold at public auction in America; Sir **Paul 387866,** by **Beau Premier,** an intensely **Anxiety** bred bull throughout, will be represented by a good share of the offering, and last, but not least, **Laredo Boy,** the line-bred **Beau Donald** bull, will have his share of the good ones to offer. The cattle will all be in good condition.

The bull offering will include sons of GAY LAD 9th, a son of Beau Blanchard, a son of Woodford's 5th, and sons of LAREDO BOY and SIR PAUL, and will be a strictly choice lot throughout. Most of the bulls will run from 12 to 15 months old, and every one will be in good useful condition, and just the kind to buy that will make bulls fit to go anywhere.

The sale will be held the same week as the Western Stock Show at Denver, Colo., and arrangements will be made to have a thru sleeper from Denver to Kansas City for the buyers' interest, and Hereford breeders. Write Mr. Miller today for the illustrated catalog. Address

Carl Miller, Belvue, Kansas

Auctioneers: Fred Reppert and others. J. W. Johnson, Fieldman. Mention the Farmers Mail and Breeze when you ask for the catalog.

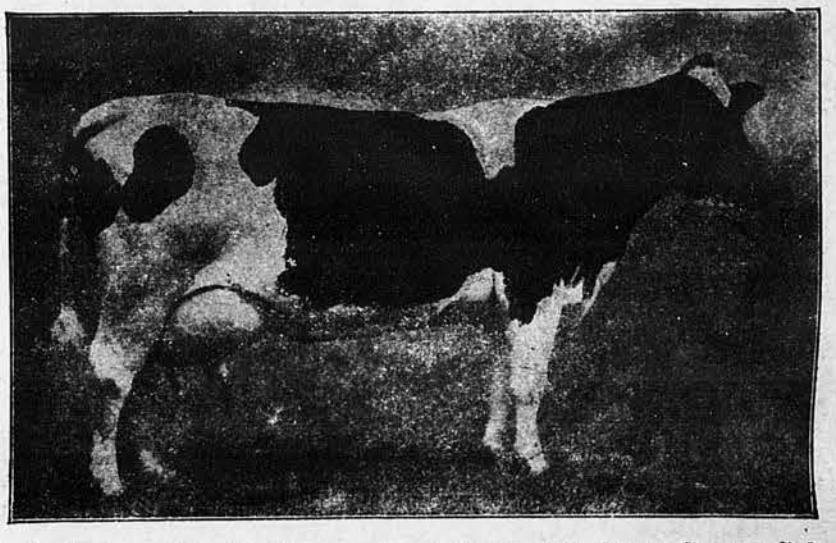
Clean Sweep Sale
50 High Grade Holsteins
Lawrence, Kan., Jan. 17

Owing to a change of business, the entire herd of O. O. GROVES will be **sold without reserve on January 17.** This herd is well known in Lawrence vicinity as one of the best producing herds in this prosperous dairy community. **This herd averages 4% fat, and milk tickets for sale of this milk will prove this to you on sale day.** Herd also averaged above 3½ gallons per day thruout last season, with many heifers with first calf.

This herd includes 38 head milking, all good ages. Big, straight, level rumped, square uddered cows, the kind we all like. A number recently fresh and milking heavy.

23 head of big springers.

Eight head choice yearling heifers and a few nice heifer calves. One big fine 3-year-old purebred herd sire will be sold.



Many cows in this herd produce 50 to 65 pounds per day under every day dairy conditions. This herd has been carefully selected during the past three years and none but the most profitable ones have been retained.

Dairymen desiring profitable additions to their herds will make no mistake in purchasing some of these good cows, and anyone desirous of starting a first class grade dairy herd will find what meets with his requirements in this Clean Sweep Sale.

Herd has been recently Tuberculin tested and IS CLEAN. There has never been an abortion in this herd.

Come to this sale prepared to buy GOOD CATTLE.

Sale will be held on farm, 1½ miles west of Lawrence. Parties coming to this sale on trains will call at "77 Garage," where arrangements have been made for your free conveyance to and from sale.

Lunch on the grounds. Sale begins at 1 o'clock sharp. For any further particulars write or wire

O. O. GROVES, Owner, F. J. Searle, Sale Mgr., Lawrence, Kan.

C. N. CREWS, O. D. THOMAS, AUCTIONEERS.

Boesigers' Great Duroc Sow Offering

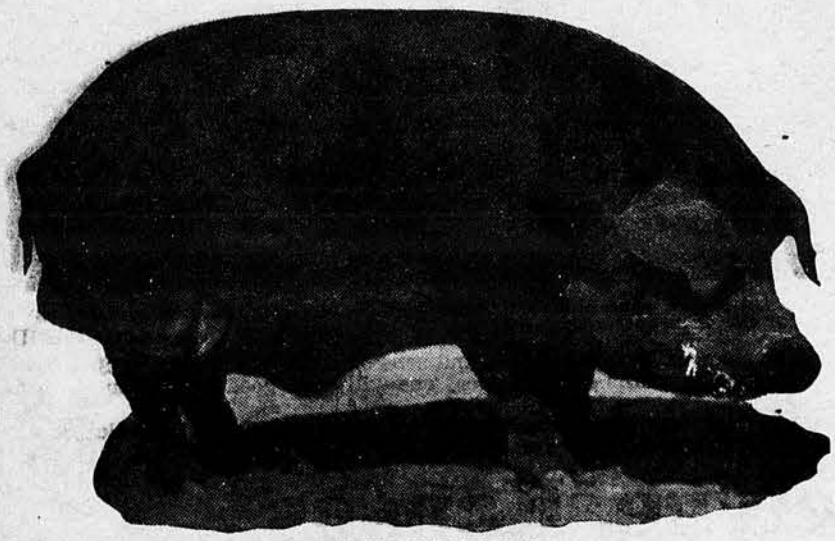
In Sale Pavilion on the Farm Near

Cortland, Neb., Monday, Jan. 20

45 HEAD, half tried sows and fall yearlings, bred to the great pair of herd boars, the grand champion, **KERNS SENSATION**, and **IMPROVED PATHFINDER**, the greatest son of Pathfinder; won 4th at International in a strong show. Few are bred to our young boar, a son of the noted high priced boar, Jacks Orion King 2nd. This is our greatest offering of bred sows and includes many outstanding individuals, some of them close up in breeding to prize winners that we have bred. The spring gilts are the tops from over 100 raised. Our herd boars are among the largest boars of the breed. Write for catalog; mention this paper.



DAVID BOESIGER



KERN'S SENSATION
The Grand Champion boar to which many of these sows are bred.

Dave Boesiger & Son
Cortland, Neb.

Auctioneers: Col. N. G. Kraschel, Col. W. M. Putman. Fieldman, Jesse R. Johnson.

Other sales of the circuit: Theo. Foss, J. T. Whalen & Son, Geo. Briggs & Son, Farley & Harney, H. E. Labart, H. D. Geiken.

A Great Collection of Duroc Breeding and Individuality

Sale at State Farm in Warm, Well Lighted Pavilion

Lincoln, Neb., Tuesday Night, Jan. 21

45 HEAD, comprising big mature sows, richly bred and of extra choice conformation, bought at top prices from the best breeders in America. When bought they were bred to boars of NATIONAL reputation. Many of these sows and the top gilts raised from them make up this, our first bred sow sale offering. They include

Daughters of **KING SENSATION, KERN'S SENSATION, IMPROVED PATHFINDER, ILLUSTRATOR 2nd, DEET'S ILLUSTRATOR 2nd**

BRED TO OUR $5,000 HERD BOARS. Notice their breeding. **GOOD ORION, ORION CHERRY JACK, OVER THE TOP ORION.**

Get our catalog and study the blood lines of these great sires. Mention this paper when writing.

J. T. Whalen & Son, Cortland, Neb.

Other sales of circuit: Dave Boesiger & Son, Theo. Foss, Geo. Briggs & Son, Farley & Harney, H. E. Labart, H. D. Geiken.

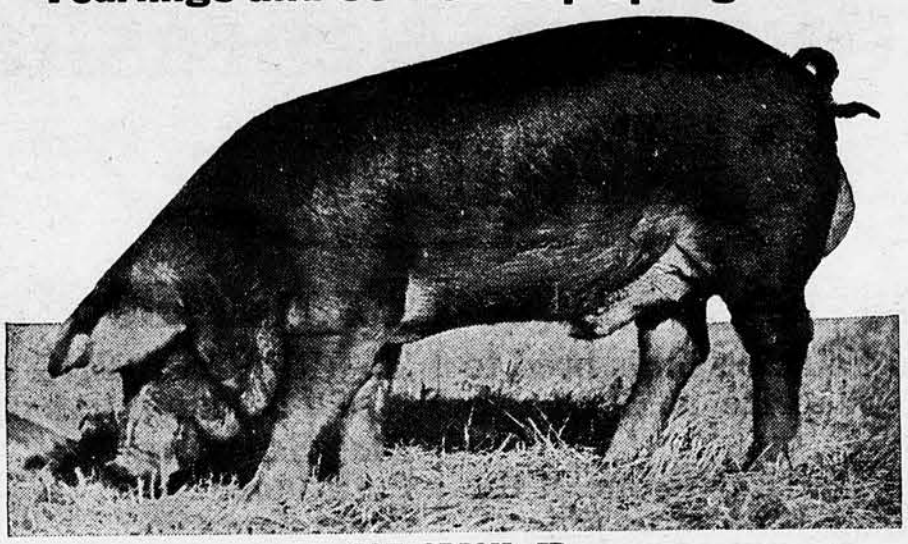
Auctioneers: Col. N. G. Kraschel, Col. W. M. Putman. Jesse R. Johnson and William Lauer will represent Capper Farm Papers.

Orion Duroc-Jersey Sow Sale

At Farm Near Clay Center and Fairfield, Neb., Wednesday, Jan. 22

60 HEAD—25 Fall Yearlings and Tried Sows. A Few Spring Yearlings and 35 Real Top Spring Gilts.

Most of offerings sired by **JOE ORION 5th, JACK ORION 2nd, PAL'S GIANT.** 25 head bred to the sensational young boar, **JOE ORION, JR.,** the remainder to the boars mentioned above.



JOE ORION, JR

ATTRACTIONS — One granddaughter of **ORION CHERRY KING** bred to **JOE ORION 5th.** One granddaughter of **CRIMSON WONDER 4th** bred to **JOE ORION, JR.** Two daughters of **JOE ORION 5th** bred to **JACK ORION 2nd.**

The offering is uniform, big, and conditioned as sows should be for results. Write for catalog. Mention this paper.

Geo. Briggs & Son, Clay Center, Neb.

Auctioneer: Col. N. G. Kraschel. Fieldman, Jesse R. Johnson.

Other sales of the circuit: Dave Boesiger, Theo. Foss, J. T. Whalen, Farley & Harney, H. E. Labart, H. D. Geiken, Proett Bros.

Sensational Duroc-Jersey Sow Sale

Sale Pavilion

Aurora, Neb., Thursday, Jan. 23

50 Head of Top Notchers

20 TRIED SOWS and FALL YEARLINGS BRED TO **PRIMROSE COL., COL. SENSATION, ORION CHERRY KING 2nd, GREAT SENSATION 2nd.**

30 SPRING GILTS, STRICTLY TOPS, SIRED BY such boars as **PATHFINDER, GREAT SENSATION, KING ORION, PRIMROSE COL., COL. SENSATION.**

One of the best offerings of the winter. Among the attractions will be three tried sows that are litter mates to **PRIMROSE COL.,** a tried sow by **PATHFINDER,** and three gilts out of the **prize winning Futurity** litter. Write for catalog and mention Capper Farm Papers.

Farley & Harney, Aurora, Neb.

Col. N. G. Kraschel, Auctioneer. Jesse Johnson will represent this paper. Send him bids in our care.

Other sales of the circuit: D. Boesiger, Theo. Foss, Whalen & Son, Geo. Briggs & Son, H. E. Labart, H. D. Geiken, Proett Bros.

Labart's Annual Sale of Duroc Bred Sows

Overton, Nebraska

Friday, January 24, 1919

50 HEAD Picked From 400 Head

30 TRIED SOWS and Fall Yearlings bred to **KING SENSATION,** 3d prize at Nebraska State Fair this year.

BIG SENSATION and **THE KING,** one of the greatest Orion Cherry King sires living.

20 GREAT SPRING GILTS. The offering will be daughters of

King Sensation	**The King**
Pathfinder	**Deet's Illustrator 2nd**
Great Sensation	**Grand Model 31st**

The greatest collection of outstanding individuals and choice big type breeding that will go through any sale this winter. Write for catalog and mention Capper Farm Papers. Send bids to Jesse R. Johnson or William Lauer in my care to Overton, Neb.

H. E. Labart, Overton, Neb.

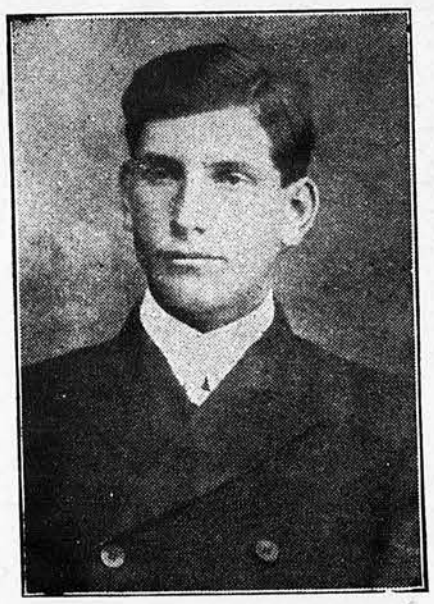
Auctioneers: Col. N. G. Kraschel, Col. W. M. Putman.

Sales of the circuit: D. Boesiger, Theo. Foss, Whalen & Son, Geo. Briggs & Son, H. D. Geiken, Proett Bros.

Geiken's Important Duroc Bred Sow Event

NIGHT SALE, in Well Lighted Pavilion at

Gothenberg, Neb., Jan. 24



H. D. GEIKEN

50 HEAD, a wonderful collection of tried sows, fall yearlings and spring gilts. Bred and safe to the $3,500 champion (had he been shown), **GRAND MODEL I AM,** and NEBRASKA MODEL, a modern type boar carrying the blood of Golden Model and Proud Advance. Twenty head of the offering were sired by **BADERS SMOOTH SENSATION,** a great son of Sensation Wonder 4th; twenty head by GOLDEN MODEL, one of the great breeding sires of the breed. Among the attractions will be some tried sows by **SMOOTH GIANT,** THE KING and SENSATION WONDER 4th. Write at once for catalog, mentioning Capper Farm Papers.

H. D. GEIKEN, COZAD, NEBRASKA

Aucts.: Col. N. G. Kraschel, Col. W. M. Putman.

Other sales of the circuit: D. Boesiger, Theo. Foss, Whalen & Son, Geo. Briggs & Son, Proett Bros.

The Platte Valley Duroc-Jersey Bred Sow Sale Circuit

200 Head—Selected From Four Great Herds—200 Head

Swartsley's Annual Sow Sale

Riverdale, Neb., Tuesday, January 28



55 HEAD sired by such boars as **King the Col., Illustrator, The King, Sensation Wonder 4th, Orion King E, Cherry Chief's Pathfinder, Bader's Smooth Sensation** and other great sires. Bred to the champion **Long Critic, Masterpiece, Cherry Chief Pathfinder** and other good boars. The offering is well grown. Write for catalog that gives all particulars. Mention Farmers Mail and Breeze.

Swartsley & Son, Riverdale, Neb.

Col. W. M. Putman, Auct.

Sows Bred to OrionCherryKingBoars

Sale on farm one mile from

Lexington, Neb., Thursday, Jan. 30



HERD BOAR, ORION E.

45 HEAD bred to Orion E., Orion Cherry. Two of the best ORION CHERRY KING boars going. Offering sired by Crimson Illustrator, 2nd.; Joe Orion, 5th; King Sensation; Disturber of Idlewild.

One of the best grown and best colored offerings of the season. Write for catalog, mention this paper. The offering is insured in the Hartford for sixty days against death from any cause.

A. C. FRENCH, Lexington, Neb.

Auctioneer, Col. W. M. Putman.

Great Orion Col. Sale

In Sale Pavilion at

Kearney, Neb.

Wednesday, January 29

50—HEAD—50

25 Tried Sows.

25 Spring Gilts Sired by Holt's Real Sensation.

The fall gilts and tried sows carry the blood of the ILLUSTRATORS, HIGH CHIEF, etc. The offering has stretch, height and bone. They are bred to **GREAT ORION'S COL.**, one of the greatest sons of the $6,000 world's champion, and HOLT'S REAL SENSATION, one of the greatest Sensation boars living. Write for catalog and get all the dope. Mention Farmers Mail and Breeze.

H. C. HOLT & SONS, Kearney, Neb.

Col. W. M. Putman, Auct.

King Orion Cherry Jr. Bred Sow Sale

At farm near

Lexington, Neb., Friday, Jan. 31

45 HEAD big tried sows, fall and spring gilts. Sired by BIG SENSATION, GREAT SENSATION, TOP SENSATION and other noted boars. Bred to KING ORION CHERRY JR. and our ILLUSTRATOR boars.



20 Registered Shropshire ewes bred to a buck having an imported sire. 30 days paid up life insurance on all hogs to be sold. Both hogs and sheep are of high quality and richly bred. Write for catalog. Mention Capper Farm Papers.

C. T. White & Son, Lexington, Neb.

Col. W. M. Putman, Auct.

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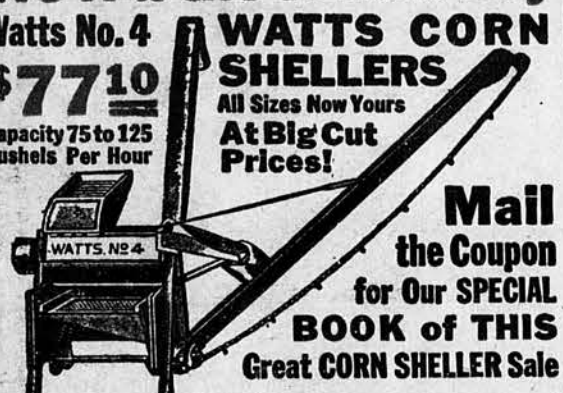
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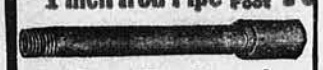
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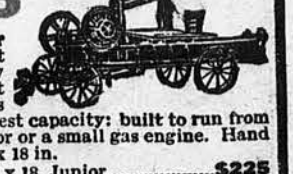
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