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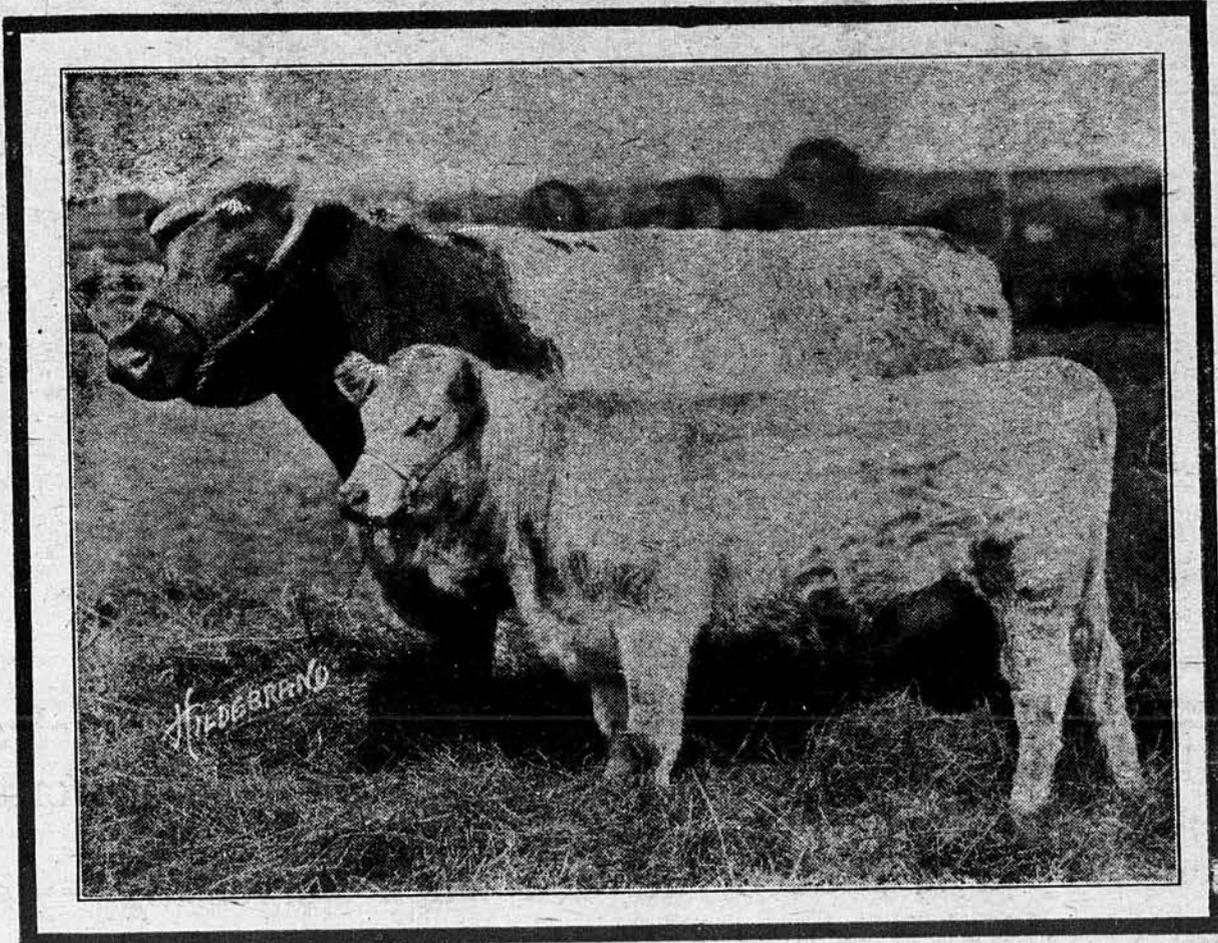
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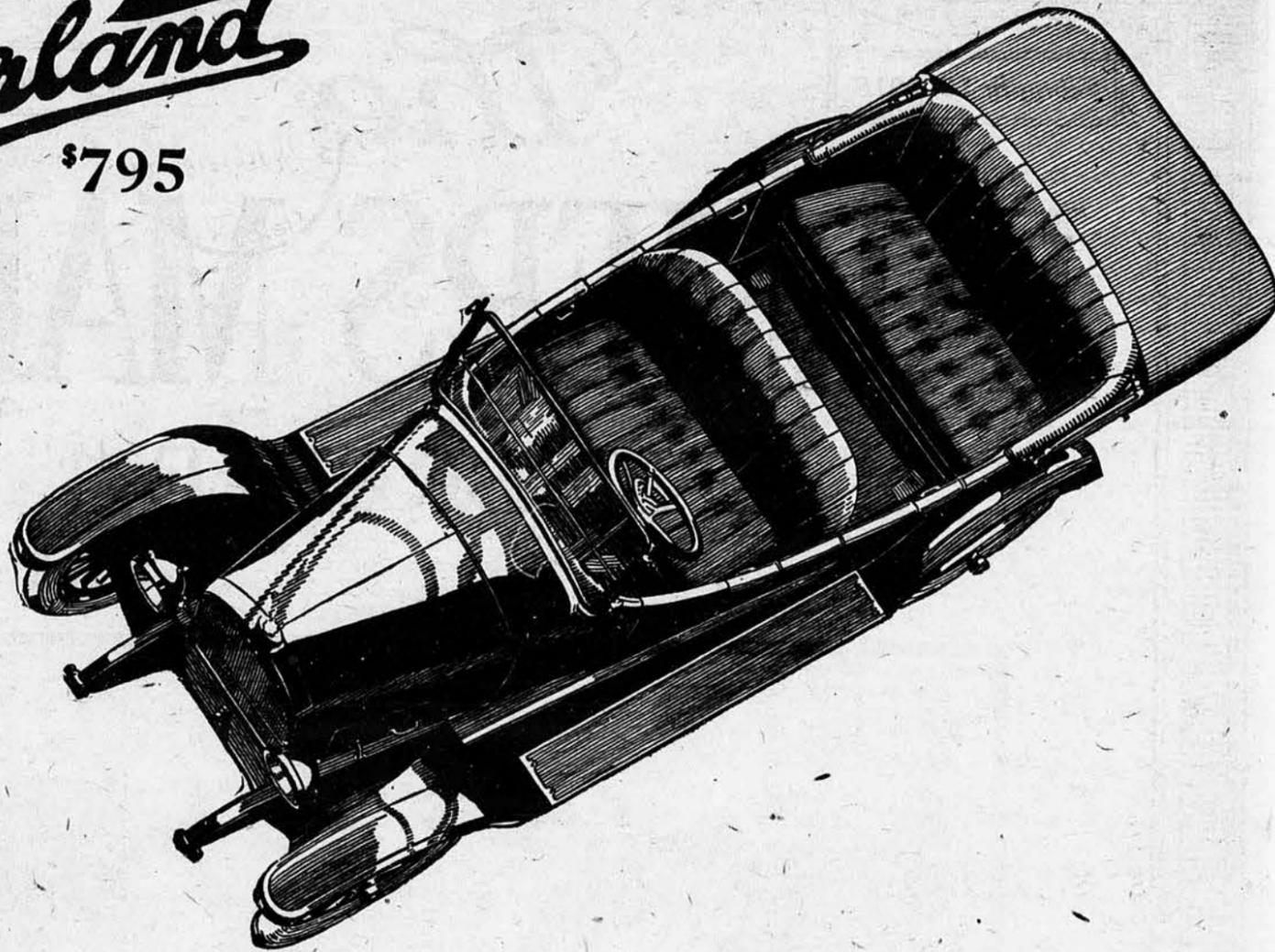
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THE FARMERS MAIL AND BREEZE

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



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JUST how many farm hands Kansas needs no man knows, but we do know that farmers everywhere are complaining about their inability to get help. Most farmers seem to think they can get their spring crops planted; it is the rush season of cultivation, haying and harvesting that is causing the worry, wheat harvest particularly.

For several years farm help has been more or less scarce, but with the entrance of the United States into the world war the shortage has grown decidedly acute. Yet, up to this time there has been no general crop failure or crop loss due to the lack of farm help. So far we have been able to plant, cultivate and harvest practically all of such acreages we have had.

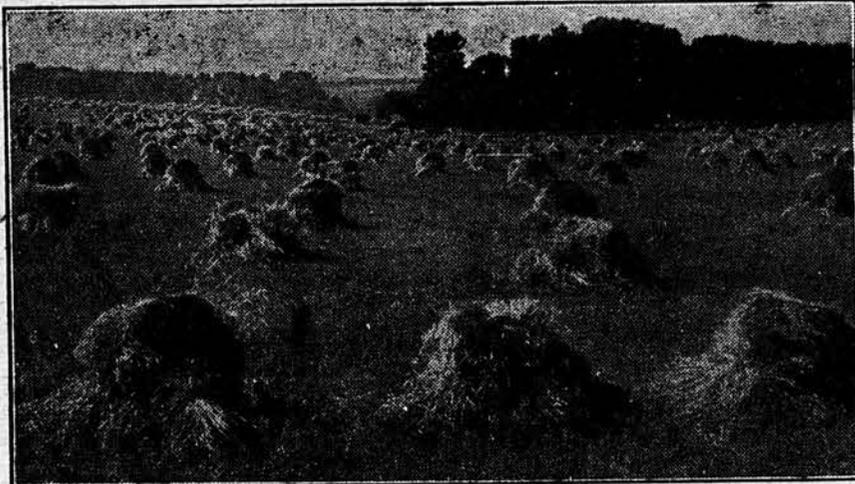
Official investigations last year, made by the state board of agriculture and other agencies, bear out these assertions. Three investigations of the extent of the labor shortage were made in 1917. The first was in April. At that time 649 farmers, from all sections of the state, reported that needs for farm help were being met; and 192 farmers reported that the needs were not being met. In June a second investigation was made. The question asked was, "Is there enough labor for harvesting and for preparing land for fall wheat?" In reply 1387 reported "Yes" and 324 reported "No." The "No's" came chiefly from the south-central part of the state, where the 1917 wheat crop was largest. Hence it is reasonable to assume that the deficiency there was chiefly in the way of hands to harvest last year's wheat. The acreage of wheat sown last fall was 9,482,000, as compared with 9,587,000 in the fall of 1916. This indicates that there was no serious shortage of labor for preparing the land for fall wheat. On November 17 the question was asked, "How is the supply of farm labor in your county; plentiful or short?" Of the farmers replying 165 reported "Plentiful now," 604 reported "Short," and 169 reported "Very short." Many volunteered the information that labor was "High."

A Real Shortage.

An acute shortage developed, then, sometime between June and November. When we consider this, the direct reasons for the sudden pinch at once become clear. Without a doubt it was due to the stupendous war activities. On June 5 all men between the ages of 21 and 31 registered for military service. About that time enlistments in the national guard, the regular army, and the navy, were heavy, and continued so for some months. In August the national guard was called into active service. In September the first contingent of selective service men was mobilized. Altogether 20,000 to 25,000 Kansans have entered the army or the navy. Some of these were college men, to be sure, but the larger portion of them came from the farm and the other industries.

But the army and the navy were not the only drains upon the labor supply. Great cantonments had to be built, and thousands of men were attracted there by the high wages offered. In addition to this, war industries thruout the country were expanded greatly, and these industries demanded large numbers of workmen. There are no statistics to show how many men went direct from the farm to work on the cantonments and in the war industries, but it has been explained by some persons that railroaders, shop men, skilled mechanics, town laborers and others were the men who went directly into this service, and that their places were in turn filled, to some extent at least, by farm laborers, because the demand for help was so great.

No matter where the usual supply of farm help has gone the fact remains that it is gone, and there will be considerable difficulty in taking care of the



Farm Laborers for Kansas

By H. W. Doyle

Special Assistant Secretary Kansas State Board of Agriculture

1918 Kansas farm work aside from the wheat harvest. The cantonments are, of course, built, and the construction work that ordinarily goes on during the summer will very likely be far less than normal. This should release some men and relieve the situation just that much. It is possible that by some hook or crook we can take care of the planting, cultivation, haying, and so on. But the big problem, the wheat harvest, is wholly unsolved.

The number of men needed for wheat harvest depends on the size of the crop, and at this time it is impossible to tell what that is likely to be. To get an idea about the normal needs the records of the state labor commissioner, P. J. McBride, were consulted. C. H. Danner, who has direct charge of the employment work in the labor commissioner's office, is authority for the following data about the needs for harvest hands in the years mentioned, and the wheat acreage figures are those of the state board of agriculture:

Year.	Number of Hands Needed.	Acres of Wheat Harvested.
1914	43,425	9,116,183
1915	47,380	7,630,810
1916	40,250	7,819,627
1917	7,500	3,546,433

These hands were needed, be it understood, in addition to the men already on the farms. They had to come in chiefly from the outside. Furthermore, the number of men needed to be brought in depended on the general labor conditions in the several years mentioned—upon whether work was plentiful.

Under ordinary circumstances, if we should be able to harvest the whole of the 9,482,000 acres sown last fall, we should need somewhere between 45,000 and 50,000 harvest hands. But in view of present demands for help by all lines

of industry, the number of men needed to help us harvest such a large acreage would far exceed those figures.

The United States government fully appreciates the situation in Kansas as well as in the other states of the Union. Early in the year the Federal Department of Agriculture began giving the subject special attention. The duty of handling the farm labor problem was assigned to the Office of Farm Management, in that department. In co-operation with the Department of Labor this office has evolved various plans for meeting the situation.

There is nothing startling or sensational about these plans. There could not be. The department could not, like Aladdin, rub a magic lamp, or go into a trance, and come out with some wonderful solution that would at once dispel all cause for worry. Necessarily the solution of such a problem is a slow process. We must find how many men are actually needed, and where. We must find out how many men are available, and where. When these things are known there must be evolved a way of placing the available men where needed. The plans the government has made, therefore, are confined to locating the jobs and the men, and bringing the two together.

Obviously these things can be brought about only thru effective organization. The present plan of organization includes the Office of Farm Management in general charge of the program, four supervising farm help specialists in charge of the northeastern, north-central, southern, and western divisions of the United States, 37 state farm help specialists—for the most part one man in charge of the work in a state, but in some instances in charge of a group of two or more states—county agricultural

agents or other county men, and community laborers or committees. This organization is in active co-operation with the United States Department of Labor, the extension division of the state agricultural college, the state council of defense, state commissioner or secretary of agriculture, state labor commissioner, and other organizations interested officially in the farm labor problem.

On the recommendation of the extension division of the state agricultural college, E. E. Frizell of Larned, Pawnee county, has been appointed by the Department of Agriculture as Farm Labor Administrator for Kansas. Mr. Frizell will be located and will direct the work of handling the labor situation of this state from Manhattan, and all communications should be addressed to him there. He is eminently fitted for this work, for he has had to deal intimately with the farm labor problem for many years. Mr. Frizell is now operating three ranches in Pawnee, Hodgeman and Ness counties—a total of 12,200 acres. As mayor of Larned he for 17 years conducted a farm labor bureau to supply labor to Pawnee county and counties to the west, in addition to securing help for his ranches.

In speaking of the Kansas farm labor problem Mr. Frizell said, "If we wait for the government to supply the harvest hands we will no doubt lose our crops. So let us get busy in every county and organize a farm labor bureau. It should be the duty of this bureau to tabulate carefully the needs of every farmer in the county, overlooking none. It also should locate and list all the possible available help, and arrange to get released from the stores, shops, mills, mines, factories and schools every person who can help harvest our crops.

Efficient Organization.

"Not only the wheat growers should be included in this, but all of the farmers in every part of the state who need more help. The corn growers, fruit growers, alfalfa and sugar beet growers, livestock men, every one of them, should not delay organizing in every county.

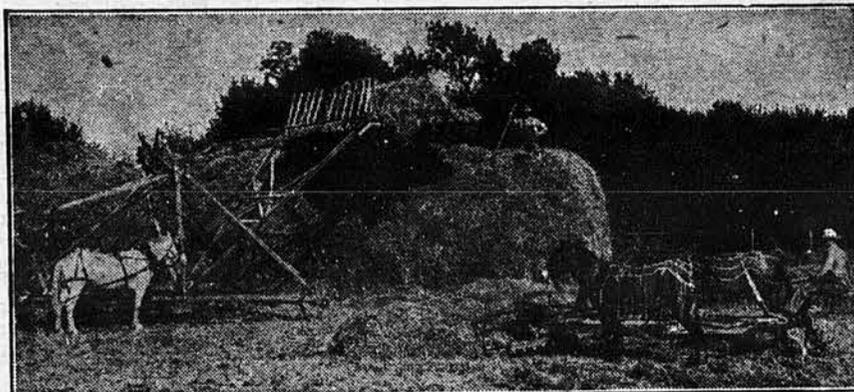
"To form the county farm labor bureaus we should get the present county farm bureaus, county councils of defense, Grange, commercial clubs, and all other county organizations to combine in one farm labor bureau, and be prepared for the work that must be done.

"The farmers of Kansas always have, can, and will do their parts."

Whether the Federal government will be able to supply Kansas with any help, thru laborers from other states, furloughed soldiers, or others, no one yet knows, and it cannot be known until every state has been organized and the situation canvassed thoroly. The only safe way would seem to be that of not counting on the other fellow.

Several sources of Kansas labor have been suggested. One of the most important of these is the boys from 16 to 21 years of age. Kansas has 15,000 or 20,000 of these boys, it has been estimated, living in town and having little or no farm experience. There is an organization now, known as the United States Boys' Working Reserve, of which W. L. Porter of Topeka is the state director, which is intending to enroll all such boys. They should form a very valuable aid, because they are young and quick to catch on, and the organization is making plans to instruct them in the more simple farm operations.

The next great source of supply should be the men now living in towns or engaged in other occupations, who have had farm experience. A large part of the population of the towns of Kansas is made up of men who once lived on farms, were raised there or abandoned the farm for other business which took them to town. There is no reason in the world why large numbers of these could not be induced to enroll to help out on the farms at the critical time of the harvest.



The Solving of the Farm Labor Problems in Kansas This Year Will Require Some very Clear Study for Every Employer.

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

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Passing Comment—By T. A. McNeal

Proper Criticism

I am in receipt of a letter from Camp Pike, Ark., written by a young medical officer there, taking exceptions to an editorial written by me two weeks ago under the heading "What of the Situation?" This medical officer gives a glowing account of conditions at Camp Pike. No man could be more gratified to know this than myself.

On the other hand I had a talk very recently with a non-commissioned officer from Camp Doniphan. I asked him if the stories told of hospital conditions in that camp were true and he assured me that they were. He also said that since the public agitation concerning camp conditions there had been a marked improvement.

The medical officer at Camp Pike seems to think that criticism of the conduct of the war is wrong and calculated to do harm. That would be true of unreasonable criticism, but reasonable criticism, or rather perhaps a demand to know the truth, does no harm but good, just as it did in the case of Camp Doniphan.

I am of the opinion that the government can afford to trust the people. I believe the people should get regular and frequent official reports concerning conditions rather than be left to depend on rumors, often exaggerated and coming from irresponsible sources. One of the troubles about the military man seems to be a feeling that he should be immune to criticism, that whatever he does should be taken without question on the general principle that he is a military man and understands military matters while the people generally do not. The people, however, in a case like the present, have given up their sons and they very properly desire to know that the boys are being just as well cared for as is possible.

I have read with great interest the long statement made by Secretary Baker before the Committee on Military Affairs. It impressed me with its honesty and frankness and I have a higher opinion of the secretary of war than I had before I read his speech or statement.

Now I am of the opinion that if the statements made by the secretary had been made a good while before it would have been better. The people generally are not unreasonable. They know it is a terrific job we have undertaken and that mistakes will be made and that the men called to their country's service will suffer on account of these mistakes. They wish to know just what the situation is and what mistakes have been made and what is being done to remedy these.

In a case like this it is impossible to keep people from talking about the situation both in the camps at home and abroad, and if the War Department undertakes to conceal the facts from the people it simply increases the apprehension which naturally exists.

Farm Labor

I am in entire accord with the effort that is being made to organize the labor of the country which may be available for work on the farms. Everywhere the farmers report an alarming shortage of help.

Here, for example, is a letter from Bert Harmon, an Ellsworth county farmer, who says: "I have been keeping a hired man the year around and an extra man in the busiest season, farming 450 acres. I kept 190 cattle last year but it was almost impossible to get extra help at any price. Four dollars a day and board was paid in some cases. One man offered \$75 a month and board but was not able to find a satisfactory man. On that account I gave up 120 acres of rented wheat land and only put in 185 acres of wheat, the smallest acreage I have put out in 20 years. My regular hired man, who worked for me three years, is married now and will farm for himself this year. So I am left with 150 cattle, 18 horses, 20 hogs and 135 acres for spring crops and 185 acres of wheat to harvest all by myself with what help my father, a retired farmer, can give me. He is too old for heavy work but can do lots of field work with a team.

"If the government can find us help we can afford to pay big wages to save the crop after it is raised and can use green hands, as they will be right under the eyes of the boss.

"I think production could be increased by the use of bigger and more modern machinery. Many farmers have poor equipment. Despite this tale of woe, we farmers are not going to lay down, but are going

to jump into the collar and do all we can to win the war. We look to Governor Capper to help us get labor and impress the government at Washington with the fact that we are short-handed and that we should like to see a few other things regulated besides what we have to sell, as we get 'soaked' every time we have to buy anything. It seems hard for the United States officials to realize that there is a shortage of farm labor and that we cannot take any old bum and make a good farm hand out of him."

But here is a somewhat different slant on the farm labor problem from a Colorado farmer. Harry Killough of Delta, Colo., says: "I am interested greatly in anything that pertains to hired help. I have more ranch work than I can do myself, as I have no boys, and the problem of making ends meet with hired help is a serious one. But as scarce as labor seems to be and apparently unreasonable as are the laborers' demands, never did I see so many men wishing to rent. Now this may not be true of Kansas, but if it is it would be better for those who have more land than they can handle to build small houses on the land and rent to deserving men. I happen to have a house already on my land and am renting part of it with everything furnished, teams, tools, and seed. I know the renter to be a good worker and the crop will be more mine than his, so I cannot see where I can lose. He absolutely refused to work by the day or the month; why, I don't know, as wages here are from \$60 to \$90 a month with house furnished; this, of course, to men who are experienced in farming.

"Now I am not a socialist so far as I know, but it seems to me as if some change is due when men who have more land than they can handle cannot hire help and yet renters are crying that they cannot rent land. Many of these are good average farmers, too.

Most of us like to manage our own land in our own way if we could hire the help, but on the other hand I sympathize with the man who wishes to be his own boss and have an interest in the growing crop even if he does not make so much money as he would as a hired hand. I never could stand working for wages myself. I could not take enough interest in the work to keep it from being drudgery. Perhaps other men feel about it as I did."

Mr. Killough has said something. In order to be a first-class farmer I believe a man must have some other interest in his work than simply the wages he receives, altho I have known some farm hands who were really remarkable for their interest and efficiency. In almost every case, however, the man was spurred on by the hope that sooner or later he would be able to secure some land of his own and be his own boss and manager.

I have noticed this, also, that some farmers never seem to have any particular trouble in getting help, while others never can get help when needed. The difference is in the farmers themselves. As a hired man expressed it in a case I have in mind, one place was pleasant and the other was hell. The man who got on well with his help somehow or other prospered better than the other farmer who never seemed to be able to get help at all.

Mr. Killough is right. There is a change coming in the farm business of this country.

The Corporation Farm

Mr. Rickenberg of Sylvan Grove writes that I am 150 years behind the times in my corporation farm idea. He says: "I was born and brought up in a village which some generations before my time had been run on some such a plan as you mention. The land was owned by the village or in common. It belonged to everybody and to nobody. The outcome was that it was not worked properly and became badly run down. The people became poverty stricken to such an extent that they had to make a change. At first they divided the farm land and meadows, but still kept the pasture in common. The change proved to be a success. Under private ownership every person worked his ground well and the people began to prosper. They realized that they could do still better if they kept their stock at home and took care of them, for by so doing they could accumulate the manure for the enrichment of the land. So the village herders were discharged and the pasture lands divided and the corporation farm was no more.

"Forty-four years ago there were still a few parts of the old system. The village still owned the drain-

age ditches and the forest. I helped to clean out the drainage ditches but I have never worked at anything where more time was killed than at the village jobs. Now sometimes it is a hard matter to get a harvest crew of six or seven men who will get along without quarreling. What do you think a man could do with a bunch of 100 men or more? The reason why it could be done in Germany was this: everybody knew that he had to obey. If the foreman could not handle him the police could."

I presume all readers of history are more or less familiar with the village system Mr. Rickenberg mentions where lands designated as commons were owned in a loose sort of way by the community or village.

This is as unlike the plan I have suggested as it could well be. That, as I gather from history, was a sort of free for all with little if any system or central authority.

I might say here that I should not claim originality so far as the corporation farm idea is concerned. So far as I know, Mr. Faris of Osage City is entitled to the credit for originating the idea. My proposed corporation farm differs from the plan suggested by Mr. Faris in the matter of detail, but the principle is the same. The corporation farm is simply putting into operation the system which has been so successful in other great corporations. It would not be a commune any more than a railroad corporation is a commune. Stockholders, however, would have actual control of the corporation and it would be impossible for a few men to get control. There would be no bar on the right of the stockholder to accumulate. Wages would be fixed according to the ability of the worker to earn. In short the endeavor would be so far as possible to retain the advantage of individual enterprise with the elimination of the waste that goes with divided effort.

Of course there is nothing in the objection that a number of men cannot be managed successfully by a single foreman. Every large corporation demonstrates the fallacy of such an argument.

The Russian Situation

I stated last week that I change my opinion of the Russian situation almost as often as I change my shirt. I am still in that frame of mind.

That my opinion now may be inconsistent with the opinion I held last week or a month ago, or with an opinion I may hold a week or a month from now, is entirely likely. No man can read of the changes in the Russian situation and be entirely consistent. I do not even pretend to be. I referred last week to what W. B. Thompson, a hard-headed and successful business man, said about the Bolsheviki. I took stock in his report because he is willing to back his opinion with his money.

It will be remembered also that Elihu Root, a man of great intellectual ability and as far as possible removed from an impractical dreamer, came back from his mission to Russia exceedingly optimistic.

Edward Russell, a writer of note and a long-time student of world politics, also was a member of the mission of which Root was the head, and came home filled with optimism concerning the Russian situation.

The opinions of all of these men gave me a hopeful view. I have, however, just finished reading an article written by a newspaper correspondent, Jack Ellis, who spent months in Russia, mingled with the people, traveled with the soldiers and made a careful, close-up study of the situation. His article seems to be fair and it reads as if he is telling the facts. If he is then there is little reason for optimism concerning the Russian situation.

On the contrary, if Ellis has the situation sized up correctly, it is going from bad to worse. This does not mean there is no possibility of a better day in Russia. Ellis believes there is but he sees ahead a bloody period of anarchy, violence and destruction.

Here is the situation as Ellis sees it. The soldiers who have ceased to fight at the front, who have simply come home and brought their guns and cartridges with them, just now dominate Russia. They were ignorant peasants before the war, the victims of tyranny and plunder. They were forced into the war without understanding what it was about and after they got to the front they were betrayed by the government which had sent them there. They were sent to fight without guns, without sufficient clothing and without sufficient food. They were

slaughtered by the hundreds of thousands. Then came the sudden, dramatic overthrow of the government which had oppressed them, starved them, betrayed them and sent them to needless slaughter. They had never understood why they were sent to fight and the thing they most desired naturally was to quit, to get home, to get their share of the lands which had been held by the rich and which they understood under the new system were to be divided.

There is always power enough in the mass to overthrow the ruling class if that power can be organized or if some force arouses the mob mass to temporary action. These ignorant peasants with guns in their hands were moved by one common impulse and that was to quit the fighting and get the land. When the czar was overthrown this great ignorant mass sensed its power and did the natural thing. The soldiers killed their officers, because the officers wished to maintain discipline and fight. The officers in the minds of these ignorant peasant soldiers represented the power which has oppressed and exploited them.

So apparently the controlling force in Russia today is the ignorant soldier, speaking collectively, and his gun. There is no difference in principle between this control and the control of Germany. The difference is that in one case the people are subjected to might, organized and disciplined, and in the other case they are dominated by might disorganized, ignorant and undisciplined.

There is in every man the instinct of the savage. In the case of many millions, education, generations of subjection to orderly government and the pursuits of peaceful occupations have suppressed this natural instinct almost to the point of extinction, but it is still there. Break the bonds of restraint and the savage will reappear. It will be manifested first, perhaps, among the least refined and most ignorant, but sooner or later it will come to the front in all classes if the restraints of civilization are removed.

The Russian peasant is not naturally savage and cruel. On the contrary all accounts agree that although ignorant he is disposed to be good natured. That also was true of the peasants of France in the time of Louis XVI, but when these peasants had tasted blood they became cruel and filled with one supreme desire to take vengeance on the class which had been responsible for their former miseries. The Russian peasant soldiers have tasted blood, and the horrors of the French Revolution may be duplicated or exceeded in Petrograd and other cities of Russia.

What Will Germany Do?

Here is a slant to this war situation which interests me. The aim of Germany is extension of territory and resources. Here is Russia lying open, helpless, in a state of increasing disorder and anarchy. The property owning classes in Russia probably would welcome German rule. It would mean the preservation of their lives and property.

The German government could well afford to make almost any sort of compromise with the allies if she could be given a free hand in Russia. She could afford to restore Belgium and recompense that stricken land so far as possible for the losses inflicted. She could afford to get out of France and give up Alsace-Lorraine. She could afford to restore to Italy not only the territory occupied in the latest drive, but the territory Italy asks for besides.

All the military men who write about the war seem to be agreed that Germany is about to begin a great offensive on the west front, and they may know what they are talking about, but to the layman it would seem that the more reasonable thing for the kaiser to do would be to come to some arrangement if possible with Great Britain, France, Italy and Belgium and then proceed to occupy Russia. It is altogether within the range of possibilities that these powers would not care to prolong the war just for the sake of saving Russia, especially in view of the fact that Russia quit on them at a most critical time and prolonged the war which with the help that Russia might have given would have been ended before now.

If Germany does not make a move of this kind it must be because the military chiefs really believe they can smash France, hold Belgium and take Russia too. If they really do entertain such a belief it would seem to prove the truth of the old saying that whom the gods would destroy they first make mad.

Ready to Help

I mentioned two weeks ago that I had the address of a farmer who was willing to pay \$50 a month for competent farm help and mentioned other farmers who were short of competent help and who feared that as a result they would have to cut down production. I supposed that I had the addresses of these particular farmers right where I could lay my hands on them in a moment but I seem to have mislaid them, and in order that they or others may get in touch with persons who are ready and willing to get employment on the farm I am here giving a few letters I have received, or rather the substance of them.

S. Crawford of Pleasanton writes that he has a good, clean son 20 years of age who would be competent help on a farm. Lee R. Kain of Rush Center is 40 years of age, hale and hearty, who also has two boys, 18 and 16 years of age, who like farm work. They are willing either to take a farm on the shares or to work for wages for a year to prove their willingness and ability to do farm work and care for stock.

Mr. Kain outlines the kind of partnership arrange-

ment he should like to make which is as follows: He and the land owner to each supply half the necessary farm machinery, tools and stock; he, Mr. Kain, to give his note at a reasonable rate of interest, secured by a mortgage for his half or so much as he might not be able to pay down; Mr. Kain to supply all labor necessary to run the farm.

J. W. Barrett of Haviland is 50 years of age, an experienced farmer, with some boys who are under the draft age. He is a member of the Friends church. Mr. Barrett says he is able to make a full hand at any sort of farm labor excepting heavy lifting, and he and his boys can handle a tractor or any other kind of farm machinery. He would prefer to operate a farm stocked with horses, cows, hogs and poultry.

It is my wish to get as many competent farm workers as possible in touch with farmers who need help. Write these men at the addresses mentioned and arrange the details.

Speaking further of the farmers and the war, Robert G. Dunshee of Mineral Hot Springs, Colo., writes me somewhat heatedly as follows:

"I see by your Passing Comments that you think that the farmer boys should be exempt from military service.

"Now do you think that Grant could have won the Civil War without the farmers' sons?

"And don't you know that the women and children did the farming then with the help of the flat-footed, hammer-toed and weak-hearted boys that were rejected as physical defects and don't you know that General Pershing needs the all around men to run his machinery with?

"Now I think there is only one fair plan for a draft, and that is to take every male person inside of a certain age. And if he can't stand the test leave him at home to help the old men and women raise the crops to feed the boys that have gone to defend the country.

"Now I have only one child and he was raised on a ranch. He is competent to do any kind of ranch work and owns an interest in a farm but for the last few years has been a principal of schools. When the war broke out he turned down a job of \$175 a month and did not wait to be drafted. He is in France now serving his country.

"I am 57 years old but I will cheerfully do my work and his while he is in the service.

"Now if these farmers are as true as they would have us believe they are why not take an invoice of what they have and let them stay at home and farm as they appear to think no one else can do and take \$30 a month for their pay and give the rest to the boys who go and face liquid fire, poison gases, shells and submarines?

"Now I mean that all the profit over the \$30 a month should be given to the boys who really defend the country.

"There is a difference between facing liquid fire, poison gas and shells and facing an old sow or an old cow or an old mare or a wheat stack.

"I was on a farm for years but the last six years I have been a postmaster and the government makes recruiting officers out of us postmasters; it imposes a great deal of work on us without pay. Now I will ask you which would you rather face with the weak-hearted, hammer-toed, flat-footed, short-legged and near-sighted, the army that General Pershing has to face or face the farm problem?

"You may say that I am shooting off my mouth without knowing what I am talking about but I do know that such articles as yours hinder instead of help to recruit an efficient army to win this great war."

While Mr. Dunshee's language may seem a trifle intemperate there are some points in what he says.

I have no patience myself with some talk that I have heard, to the effect that the man who stays on the farm is showing as high a degree of patriotism as the man who goes out to face German shells, poison gas, or to cut his way thru wire entanglements and take his long turn in rat-infested trenches. There is neither hardship nor special danger in feeding cattle or doing other necessary work on the farm. Furthermore, the farmer and his boys are entitled to no more consideration than the men of other occupations. There is, however, unless I have been greatly misinformed, a great scarcity of competent farm help, and farm production is as necessary to win the war as fighting men. The army must be fed and clothed if it is to be effective. The men engaged in making munitions also are not taking the same risks nor are they enduring the same hardships as the men at the front and for that reason are not entitled to the same glory or consideration, but they are just as essential to the winning of the war as the men at the front.

I was a very small boy on the farm during the progress of the Civil war. It is true that practically all of the farm boys of military age in my neighborhood went to war and somehow the farm work continued to be done, but I do not think there was so great a scarcity of farm labor as now. Neither was there the necessity for a knowledge of machinery that there is now.

Mr. Dunshee believes that the old men, the women and physically weak youths of the country can run the farms and not only keep up the farm production, but also increase it, for it is necessary that the farm production should be increased greatly if our own needs and the needs of our allies are to be supplied. Can the agricultural production of this country be increased with that kind of labor? I hardly think so.

Mr. Dunshee and his son are to be congratulated for their patriotism and the young man especially for his willingness to make a sacrifice for his coun-

try, but according to Mr. Dunshee's statement the enlistment of his son did not subtract anything from the agricultural production of the country. Suppose, however, that the young man had been engaged in the business of farming and raising stock and had been a success. Suppose by reason of his experience and good judgment he was able to produce several hundred head of beef cattle every year. And then suppose he was faced with this alternative, sell all of his cattle and reduce production to that extent while he went out to fight for his country, or continue his operations as a stock feeder and farmer and let some other man less competent as a producer go to the front, which should he choose?

If he had remained on the farm at least until his services were really needed by the government, he would not have faced the dangers he is facing and would perhaps not be entitled to the same amount of glory, but in which capacity after all would he, under the circumstances I have outlined, be of the most service to his country?

Personally, since we have the draft, I would make it applicable to all men. There is a manifest injustice in forcing a certain class to make all the real sacrifices. We say to the young men between the ages of 21 and 31 that willing or unwilling they must abandon their business and its profits and go into the service of the United States at a wage of \$1 a day and board and clothing and be satisfied.

In case they have dependent relatives certain provisions are made for them, but the total compensation permitted only amounts in the extreme cases to \$80 a month with board and clothing for the soldier.

If that is fair when applied to this certain class, why not extend it to all classes?

Why not put all of us on the same basis and demand of all of us that we do our share of service where it can be performed best? Under the present arrangement some persons do a great deal more than their share and many a great deal less.

To Dispose of Aliens

Writing from Blake, Okla., David Kennedy tells of how alien enemies should be handled. He says:

"Let us take all Germans who have not become citizens, intern them and treat them with kindness but make them work to pay for their food and clothing. All those who have been naturalized, all I. W. W. and all other persons who are not satisfied with our government I would place on one of the Virgin Islands, after having first removed the natives to one of the other islands. I would allow them to take all of their property with them, and any money which they had. Give them food until they had time to start farming operations. I would keep two war vessels near the island to see that they did not leave, and I should never allow one to return to the United States.

"I also would forbid any German or Austrian from coming to this country for 50 years. I also think that all business should be transacted in English, and that only this language should be taught in our schools."

It occurs to me that Mr. Kennedy would have considerable difficulty in putting his program into operation. Also I hardly think that any considerable number of people would be in favor of it.

For a Spirit that Wins

From an Address by Governor Capper at the Patriotic Rally at Garnett.

Kansas will do her duty when she sees it. There's no doubt about that. But what? Every additional bushel of wheat, of corn, of grain that we can produce; every additional hog, steer or sheep that we can raise, will help to win. But that isn't patriotism, and nothing else, it's good business sense—the taking advantage of a good business opportunity. Every slice of bread or piece of meat or ounce of sugar that can be saved will help to win. The government urges us to turn from the use of foods which can be transported easily to Europe and which are so sadly needed, to support the war. It asks us to substitute for our own use other foods which are more abundant and which cannot be transported. Even families which already are practicing the strictest economy, even the careful housewife who never wastes anything, can help by changing the bill of fare and using wheat and meat and sugar as sparingly as possible.

In my own home where strict economy may not be absolutely necessary, we are trying to comply with this request, because it is a part of the government program. My good wife feels we must all work together in doing what the government asks; and that the Food Administrator's rules are meant as much for governors as for anyone else. It is only by united effort we can win.

But the production of larger crops and the thrifty conservation of foodstuffs, necessary and vitally important as they are, are only the beginning of our duty. We've got to dig down into our pockets and give, and give, and keep on giving until we think we can't give another cent, and then start in and do it all over again. We must keep this up until the last vestige of autocratic militarism is swept from the face of the earth, and our boys come back home to peace and prosperity.

A Favorable Outlook for Meat Growers

Farmers Can View the Livestock Situation With Much Enthusiasm and Expect Fair Prices and an Excellent Demand

[Mr. Durand is Assistant Head of the Meat Division of the Food Administration.]

By E. D. Durand

THE AMERICAN people are just beginning to realize the seriousness of the business of war. Most of us heartily favored the entrance of this country into the struggle against Germany, which had shown herself to be the enemy of civilization. We declared ourselves willing to do and sacrifice anything to win the war. But we did not know then—we hardly know yet—what was meant, by that declaration.

We must not blind ourselves. The success of the war depends absolutely on tremendous efforts on our part. The Allied powers cannot win without that aid. Russia is apparently out of it, and hosts of Teutonic soldiers are freed for the Western front. Italy has been invaded. The submarine campaign has caused a serious shortage of shipping. Our railroad service has proved inadequate to the tremendous demands upon it.

United Efforts.

All this means simply that we have got to take in our belts, work harder and sacrifice more. The war must be won. All the noble aims which President Wilson has lately set before us so clearly must be achieved. Otherwise the world will not be fit to live in. It will not be safe for democracy. It will over and over again be subjected to just such horrors as it is now suffering. We must go to the limit now in sacrifice, or we and our children's children will have to sacrifice vastly more.

The farmer is no slacker. He is as ready to fight, to pay taxes, to sacrifice profits and comforts as any one. The big majority of farmers have thus far, I believe, prospered financially from this war. Whether they can continue to prosper so much is doubtful. I know, however, that they will bear it bravely if they find their profits reduced.

Just lately a good many farmers in this section have been hard hit by the high price of feeds for their cattle and hogs, and some by a decline in the prices of the higher grades of corn-fed cattle. Those who have been thus hit will, I know, make no complaint if they are convinced that it was no one's fault. Some of them have a feeling, however, that their loss is due to some neglect on the part of the government, to profiteering by the packer or the retailer. They wish abuses corrected.

There is practically no foundation for this feeling. The government is not perfect in its work. There may be some profiteering. But, broadly speaking, any hardships which farmers have suffered, and for that matter any hardships which other classes recently have suffered, are simply the inevitable result of war. They are just as definitely due to war as if a German army had ravaged us. It is the Prussians who are hurting some of you cattle feeders, not your fellow citizens or your government. So you simply have to buck up and bear it. The man who happens to have suffered most, so far, may perhaps find comfort in the knowledge that sooner or later practically every one must suffer, and suffer more or less equally. The country is getting its first experience with the burdens of war. It has much worse before it, if the war ever hits us as terribly as it has every other nation engaged in it.

Food is Necessary.

Farmers are asked to do all that their strength and resources permit in helping to win this fight. It is the part of the government to see to it, so far as it can, that your work and your sacrifices are not wasted, that they count for victory. The task of provisioning ourselves and our associates in the war is fundamental. Food is ammunition.

As regards the livestock industry, the government has done and is doing a great deal to make work in production count. The Food Administration has no apology to make on this score.

In the first place, the Meat Division has limited the profits of the packers. The big packers are not allowed to make more than 9 per cent on their investment, a moderate return under war con-

ditions and in view of the risk. This profit represents little more than \$2 out of \$100 worth of product sold, a little more than 2 per cent on sales. Smaller packers are allowed to make not more than 2½ per cent on their sales.

In the second place, steps have been begun to prevent profiteering on the part of the retail meat dealer. The retailers cannot be regulated in the same complete way as the packers; there are too many of them. But something has already been done and more will be accomplished.

In the third place, the Meat Division has undertaken measures which will soon result in reducing materially the waste of food, and the waste of labor as well, in the operation of packing houses and of the packers' distributing facilities. This saving will cut down the margin between the producers' price and the consumers' price.

Fourthly, the Meat Division has stabilized the price of hogs. Early in November Mr. Cotton, head of the division, announced that the policy would be, so far as possible, both to check sharp fluctuations and to prevent the price of hogs, until further notice, from falling below \$15.50 on the Chicago market. This policy was not backed by any money with which to buy hogs or pork. The division, however, felt confident of its ability to carry the policy out, by reason of its control over the very large purchases of hog products for export. You doubtless know that the govern-

ments of England, France, Italy and Belgium and the Belgian Relief commission buy all the imported foods used by the civilian population of these countries, as well as by the military forces. Their purchases of meats are made thru the Meat Division of the Food Administration, which allots the business among the packers and fixes the prices to be paid.

The purpose of this policy of stabilizing prices was to encourage farmers to hold and feed their hogs for increased weight or to buy pigs and fatten them, by the virtual assurance that it would pay to do so. That purpose is being accomplished. An unprecedented number of feeder pigs have been bought by farmers since the policy was announced. The hogs are coming to market with decidedly increased weight. This country and the allies are thus getting the increased quantity of pork and lard imperatively demanded. For do not forget that fats are absolutely necessary to human life, and that there is an extraordinary shortage of fats in Europe. The hog just now is the most important domestic animal on earth.

The Meat Division does not expect to change the minimum of \$15.50 for some time to come. It fully expects to be able to hold hogs above it. It has special buying orders for export sufficiently adequate, we believe, to handle the run of hogs this winter, no matter how large, at or above the \$15.50 price. Farmers should conserve their feed stuffs and

fatten hogs so long as they gain properly in weight. Send in the hogs when they no longer make economical gains, but not before. The market will not fall appreciably if at all.

On the other hand, the hog market probably will not rise materially this winter or spring. You must understand that the Meat Division is using its control of export purchases to stabilize prices in the interest of the consumer, domestic and foreign, as well as in the interest of the producer. The patriotic farmer does not ask for an exorbitant profit.

It is possible that once or twice again this winter, as once or twice already, it may prove necessary for farmers to hold back for a few days hogs they are ready to ship. The railroads may have difficulty temporarily in bringing the hogs to the central markets, or in taking live hogs or hog products East from those markets. If that happens, the farmer ought to look on the hog held back as if he were a billeted soldier, to be boarded cheerfully for a day or two to help win the war. We shall not ask you to hold him back because of any general oversupply; there will be no oversupply.

Hog Prices.

We are often asked about the hog-corn ratio of 13 to 1. When will it go into effect? I will quote you just what Mr. Cotton said on that point in his original statement in November: "Therefore, as to the hogs farrowed next spring, we will try to stabilize the price so that the farmer can count on getting for every 100 pounds of hog ready for market, 13 times the average cost a bushel of the corn fed into the hogs. Let there be no misunderstanding of this statement. It is not a guarantee backed by money. It is not a promise by the packers. It is a statement of the intention and policy of the Food Administration, which means to do justice to the farmer."

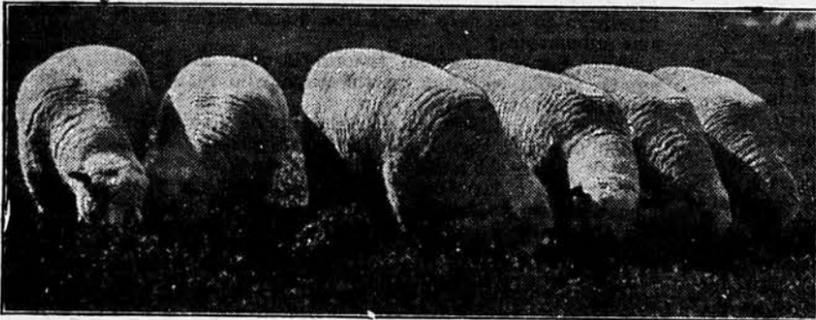
We have nothing to add to that. The 13 to 1 ratio, of course, will not be in force for some time to come. Our ability to maintain it is not guaranteed, but our success in maintaining hog prices this winter is encouraging.

Now about cattle: The Food Administration has so far kept its hand off cattle prices. Many producers urged us at first to leave them alone. In the last few months, however, there has been a considerable fall in the price of heavy, fat, corn-fed steers. Some producers are urging now that the government fix definitely the minimum cattle prices or abolish the meatless days so far as beef and mutton are concerned. The government cannot wisely do either of these things, but it is in a position to do something, and I will tell you about it.

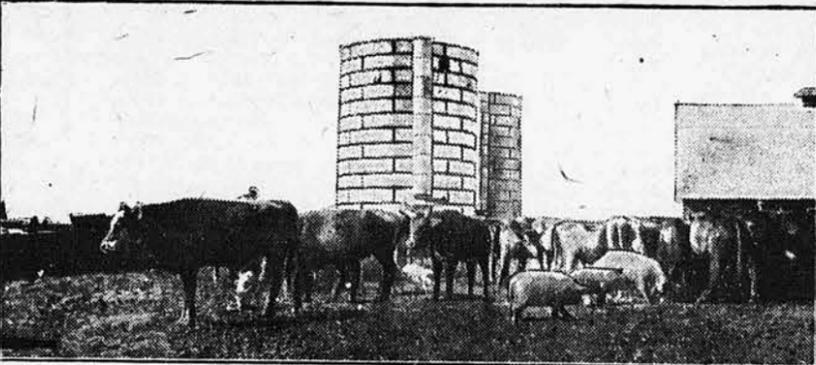
Help for Cattlemen.

The United States for a number of years before the war exported very little beef. Since the war in Europe began quite a little has gone over, either frozen or canned. Now the situation has become such that a good deal of beef is needed this year. We have arranged with the Allied governments to place some unusually large orders just now—orders partly for future rather than immediate consumption—if the run of cattle is so heavy that the domestic market does not readily absorb the beef. We are confident, therefore, that there will be no decline in the price of the grade of cattle used to fill these orders, namely, medium weight, medium quality cattle. And we think it very probable that the taking of these large quantities of that class of beef, which normally forms the bulk of the supply, will prevent a further decline also in the heavier and fatter cattle unless farmers try to market too many.

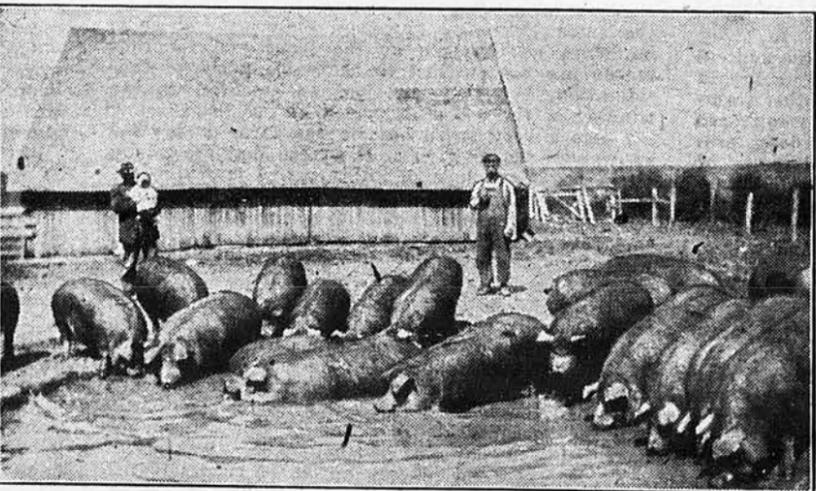
Don't mistake what has been said as a tip that the market for cattle is going up. These special export orders will not be carried out if the market is boosted. But don't make the mistake either of fearing the prices will drop by and by and rush everything to market immediately. If enough cattle come all at once they will swamp any buying orders.



A Small Flock of Sheep Can be Maintained Profitably on Most of the Average Farms in Kansas Largely on the Waste Feeds.



A Continued, Uniform Livestock Industry is Essential for the Best Development of a Farm Community.



There is a Good Outlook in the Business of Pork Production, for the Food Administration Expects to Maintain the 13 to 1 Ratio.

Increase the Corn Yields by Cultivation

The Growth of This Crop Must be Considered Carefully, Especially This Year, With its Probable Labor Shortage

By S. C. Salmon

RECENT experiments show that as good or better yields of corn can be secured by even less labor than is often thought necessary.

When I came to Manhattan about four and one-half years ago I found that one of the most commonly accepted principles in growing corn was that cultivation to conserve moisture is necessary. It was thought that corn should be cultivated during the summer so far as practicable and that the drier it was the more necessary it was to cultivate. I do not know how generally this opinion is held at present but I have no doubt that many farmers still hold to it.

This idea did not agree with my experience and I could find no experiments that would substantiate it. Hence I started some experiments to find out if summer cultivation would pay and also to determine so far as possible to what extent cultivation was beneficial in killing weeds and to what extent it was beneficial in conserving moisture.

An experiment the first year included 12 plots which were cultivated in four different ways—that is each method was practiced in four different plots located in different parts of the same field in order that any variation in the soil would offset all methods alike. The methods used were as follows:

1. Cultivated in the ordinary way. This consisted usually of three cultivations at intervals of a week or 10 days.

2. Cultivated the same as No. 1 until laid by. Then cultivated with a one-horse harrow-tooth cultivator between the rows whenever necessary to kill the weeds or establish a mulch. This usually consisted of one or two cultivations only during the summer.

3. Cultivated the same as No. 1 until laid by. Then cultivated with a one-horse harrow-tooth cultivator every 10 days until the corn was mature.

4. Not cultivated at all. Weeds removed by scraping with a hoe, loosening the dirt as little as possible.

In 1914 the test was conducted on rather thin upland; in 1915 on upland and rich bottom land; in 1916 on upland only, but in one case on early fall plowing, in another on spring plowing, and in still another test on unplowed ground. In 1917 the test was conducted on upland, one test being on fall plowed and another on unplowed ground. In all cases except as otherwise specified the ground was plowed in the fall, worked early in the spring with a disk and a harrow, and was in excellent condition when the corn was planted. The surface planter was used in all cases.

To our surprise summer cultivation usually has not only not increased the yield of corn, but in most cases has resulted in a positive loss. Also the loss appears to increase with the number of cultivations. Thus the average

yield for ordinary cultivation is 44.8 bushels as compared with 44 bushels for summer cultivation as necessary to kill weeds or establish a mulch, and 43 bushels for summer cultivation every 10 days.

Another rather surprising result is the exceptionally good yields secured from the plots that were not cultivated but on which the weeds were removed with a hoe. The average yield of these plots is only 1.1 bushels less than the best method, and in most tests has yielded as high as the best.

It appears certain that even with a harrow-tooth cultivator set to cultivate very shallow as was done, there is considerable root pruning during the summer, and the injury to the roots by late cultivation is more than enough to compensate for any gain due to conservation of moisture or killing weeds.

At this stage of growth corn roots are near the surface and hence are injured easily by cultivation. Also, the soil is well filled with roots which intercept any moisture that tends to move upward. If weeds have been controlled the corn roots are so well distributed in the soil that weeds will do little damage.

The yields of the non-cultivated plots show that the principal value of cultivation under conditions at Manhattan is to control weeds. Only in 1914 and again in 1917 was a materially lower

yield secured from these plots. The location of the plots and the slope of the land suggested that the greater yield of the cultivated plots in these seasons was due to cultivation putting the surface in better condition to absorb rainfall rather than to preventing the evaporation of water already in the soil.

It is probable that on some soils, especially heavy clay soils, cultivation would be beneficial for this reason aside from killing weeds.

The practical application of these results appears to be about as follows: First, summer cultivation after the corn is laid by, in general, should not be practiced—certainly not with conditions such as those at Manhattan during the last four years. If conditions are such that a crop of weeds can be killed by a very shallow cultivation, it probably would be advisable to cultivate—otherwise it would not.

Second: It probably is not necessary nor advisable in most cases to cultivate more than is required to control weeds. On heavy soils it probably would be advisable to cultivate in case a heavy rain caused the soil to run together or crust badly in order to put the surface in condition to absorb water. Otherwise, corn should be cultivated only to kill weeds.

Third: These results appear to show that much labor might be saved by good preparation of the ground, rotation of crops, and by other practices which result in a better control of weeds.

Why Not Plant More Potatoes in Kansas

Select a Fertile Field and Plow it Deeply; the Crop Can be Mulched With Hay or Straw

By E. L. Blaes, Abilene, Kan.

THE GROUND for potatoes should be plowed to a depth of from 6 to 9 inches in the fall or early winter, and should be well drained and reasonably fertile. Too much manure may cause the potatoes to be more or less scabby if they are infected with scab. The manure itself will not cause scab on a healthy potato, and scabby potatoes should not be planted. If the scabby ones must be planted, dip them into a solution of blue vitriol and water, or some other mixture that will kill these scabs. As a rule one or two good healthy eyes to the piece cut from a good-sized potato should give results if planted in a good seedbed, and should produce fine seed potatoes for the following year. Quite often small potatoes are used for seed with pleasing results, the first year or even the second year, but to plant the small ones every year and use them again the year following is likely to cause them to become poor producers or to run out. Good results may be obtained occasionally by planting potato peelings, but the ground and weather conditions have to be favorable or the potato eye or sprout will produce a weak plant, if it doesn't die, as there is not enough plant food there to give it the proper start.

Good Seed.

Some persons go to the other extreme by planting large potatoes whole for early use. Large potatoes make strong, healthy plants, but this is not practicable unless potatoes are cheap. If the potatoes are to be dug with machinery plant them the same distance apart as corn rows, and from 12 to 18 inches apart in the row, according to the fertility and the expected rainfall. They should be covered with about 3 inches of dirt, or enough so they will not dry out. As soon as the first potatoes come thru the ground they should be mulched with old prairie hay to a depth of 6 inches, or straw about 8 inches deep if dry, or 5 inches if wet.

Old straw is preferred to new because in the new the grain is likely to come up and smother the potatoes, altho this may be remedied by raising the straw or stirring it around when the grain begins to sprout. If a good job of mulching is done no weeds should come thru the straw, but should any appear they may be cut out easily with a corn knife or hoe.

Potatoes should be left in the ground until cold weather, as they will keep nicely under the mulch. Mulched potatoes usually have a much better flavor and will keep longer than when grown without it, because they do not sunburn or become soft and soggy from the heat, and may be kept until late spring or early summer to sell when the market is not overloaded.

In an ordinary year a yield of from 100 to 300 bushels an acre may be ex-

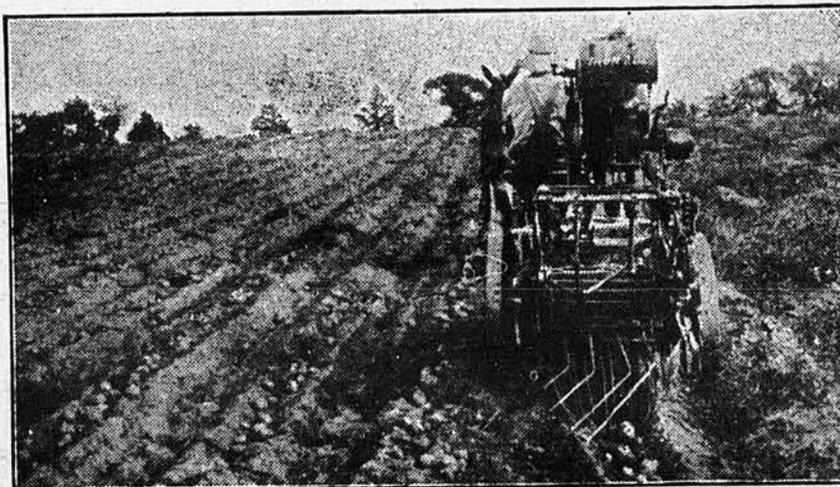
pected. When digging time comes the straw or mulch may be raked off, or bucked off with a haybuck, if it is reasonably dry. However, if it is wet dig a few rows around the outside of the patch or thru the middle and throw the mulch where the potatoes were. If the potatoes are deep in the ground the mulch may be burned off, but frequently they are on top of the ground and are scorched or burned, causing considerable loss in potatoes besides the value of the mulch as fertilizer.

Potatoes, to keep well, should be dry and cool before being put away for winter. If damp and warm they sometimes become heated and sprout long before the winter is over. A good method of storing is to put the potatoes in a cave in bins about a foot from the ground and the same distance from the walls so they will not draw mois-

ture and heat from the ground. They may be piled to a depth of 4 or 5 inches but no higher unless ventilators are put down thru the bins to carry off the heat and moisture. The temperature, as nearly as possible, should be kept just above the freezing point in winter. If a cave is not available they may be buried in the ground and covered with straw and old hay with some dirt or manure on top. A ventilator should run down from the top to the bottom of the pit to provide ventilation if the potatoes are to be kept any length of time. Care must be taken to close the ventilator in extremely cold weather, or some of the potatoes may get frosted. Potatoes grown and stored in this manner will keep until the new crop is large enough to use, and they will be good, solid, highly flavored potatoes.

Use the Old Straw.

We have had Early Ohio and Irish Cobbler potatoes keep in first-class condition until July 1, and a late variety that we call Blaes's Choice until August 1, or nearly 11 months after they were dug. A great many persons say, "Oh, I can buy potatoes cheaper than I could raise them." Persons who have old straw stacks in their fields could use them to no better advantage than to mulch an acre or two of potatoes. They could make good wages for the time put in besides having some excellent vegetables. We have mulched our late variety of potatoes for the last 14 years and our only failure occurred in 1913 when the grasshoppers ate the crop. Bugs seldom bother these potatoes unless they are planted near other varieties. We never have had to spray ours when planted in a patch by themselves. We usually plant potatoes after the corn is in the ground, when the soil is good and warm. If planted too early they may rot in the ground. The early varieties are planted at this time also, if they are to be mulched. We planted 3 acres last year.



Use Good Seed and Proper Care, and You Will Find that Potatoes Make a Satisfactory and Profitable Crop.

To Win With Trees

Planting Must be Done Properly or a Big Loss Will Occur

By Seward D. Smith

"Plowed For 28c An Acre"

"AND it was mighty good plowing too," says Will Clark of Emerald Grove, Wis., when telling about his new Janesville Tractor Plow. "Turned everything clear under just like our Janesville horse plow. Our Janesville horse plow always pulled a horse lighter and I am glad to see you put the same proposition in your tractor plow."

JANESVILLE Tractor and Horse Plows

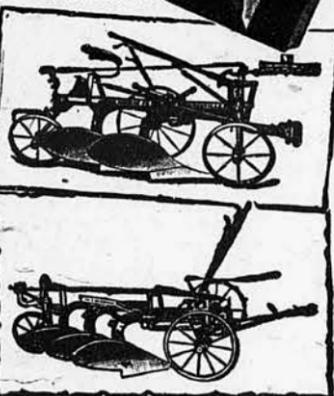
The secret of good plowing with these plows is in the flexible frame and the shape of the mouldboard. The first point to consider in either a tractor or horse plow is the frame. It must handle the plows properly; allow enough of a "floating" movement for the plow bottom to take away the pinch at the plow points. Then consider the mouldboard. It must curl the furrow smoothly—handle flow of soil with least pull on the team or drawbar. These features in Janesville plows account for their winning year after year in the famous plowing matches at Wheatland and Big Rock, Illinois; also for being able to use the same plow bottom in sticky loam, blue muck, clay, sod or stubble. As one owner says, "I can plow anywhere as good as in my best field."

Janesville Tractor Plows curl the furrow at any speed. Can be used with any tractor. Two or three bottoms. Plow 12, 13 or 14 inch furrows without changing plow bottoms.

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A CONSIDERABLE acreage of trees is planted every year in Kansas. The number of trees lost can be reduced by a little more care. Planting methods are dependent largely on the size of the stock and the condition of the site. When stock is received for planting, the first precaution is to see that it has not dried out. Roots never should be exposed to the sun or drying air. The roots of stock that is packed in crates should be moistened thoroly before the trees are removed. If the trees are extra-large conifers and the roots of every tree are protected with earth bound with a cloth covering, the whole should be planted without removing the wrapper. In any case, all small stock, if it cannot be planted at once, should be heeled in in a cool, moist situation. The tops should not be covered.

All grassy, weedy, or heavy land should, if it is practicable, be plowed and harrowed at least 12 months before the trees are planted. Fall plowing is preferable. If manure is to be used, it should be applied at the time of plowing to enable it to decay. If it is placed fresh next to the roots at the time of planting, there is danger of "burning" them. Altho plowing is not absolutely necessary, it is productive of good results and the benefits are several times as great as those secured by caring for the ground after the stock is set out. It is still better to use ground which has been under cultivation for two or three years. Young plants need just as much care as a garden, and their growth will be proportionate to the amount of care they receive.

A Shallow Furrow.

Planting may be done in either of two ways: By the slit method or by the individual-hole method.

Either of these methods may be worked out in a shallow furrow. It is very desirable on sod ground to plow a furrow if complete cultivation of the planting area cannot be carried out. This will remove the grass cover and will make the work much cheaper. All sod or grass cover should be removed from a space at least 15 inches square before a tree is planted, provided it is not set in a furrow.

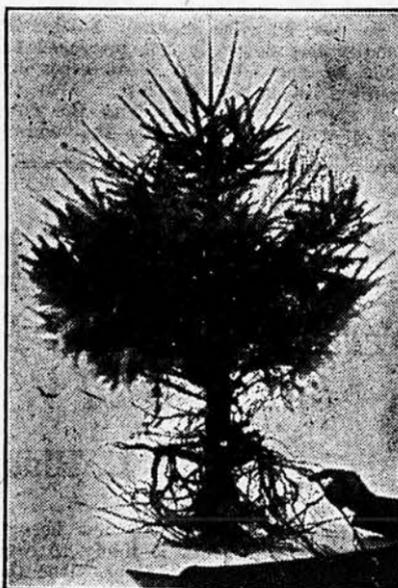
The slit method is the cheapest and in light, sandy soils the best. A spade is used to open a wedge-shaped hole in the ground by moving it forward and backward. Into this opening the tree roots are suspended full length, and the earth is pressed firmly around them by a thrust of the foot which closes the hole.

A hole is dug wide enough and deep enough to accommodate the tree roots without crowding. Care should be exercised in putting the soil back on the roots to see that no large rocks or sods are allowed to fall in, because of the possibility of leaving air spaces, which will cause the plant roots to dry out. Holes never should be dug a long time in advance of planting, unless it be in the fall, on account of the danger of drying out. If there is a hardpan or stratum of soil impervious to water at the bottom, this should be broken up thoroly with tools or a light charge of dynamite. Unless this is done the tree will not thrive.

Spring Planting.

Planting should be done in the spring. The best results are secured from the earliest planting. This rule has no exception in the plains region. Fall planting may be advisable in certain cases where it is possible to give a tree individual attention, but in every case where general planting has been done after the growing season has passed failure has resulted. When trees are planted in the spring, they have the advantage of a full summer's growth and the accumulated winter moisture, and the liability of loss from winter heaving caused by alternate freezing and thawing is slight. It is also a decided advantage if the planting can be done on damp, cloudy days, thus affording the tender roots protection from the hot sun and wind. The amount of cultivation to be given a plantation determines to a certain ex-

tent the spacing of the trees. If the plantation is nearly square, room may be made for working a cultivator both ways by setting the trees in the rows the same distance apart as the rows, but if a long, narrow windbreak is being developed it is doubtless preferable to have the trees close together in rows that are far enough apart to allow cultivation to be carried on for several years. A spacing of 2 by 8 feet will give the same number of trees an acre as a 4 by 4 spacing, and will provide for a much longer period of cultivation. The aim should be to keep the ground free from weeds. If the trees are not close enough to accomplish this, cultivation must be practiced, and the spacing should provide for sufficient room for a team and tools to pass easily without injuring the bark of the trees or breaking off the limbs. The tendency is to set the trees too close rather than too far apart. In general, the rule is that a wide spacing with frequent cultivation is productive of better results than close spacing and less frequent cultivation. However, on those farms which are favored with river bottom land the trees should be spaced much closer, since the yield will be greater and the trees will be better formed.



Well Developed Roots Are Essential.

In plantations closely spaced some of the smaller or stunted specimens may be thinned out and used for fuel or posts if the trees begin to crowd too much.

It is much easier to plant trees for protection from the wind or for the production of posts and fuel than to make a combination of the two, because the removal of much material may lessen the value of the windbreak unless it is very large and planned to supply other products. If it is desired primarily to grow posts or similar material, the lower branches must be pruned off and the worthless trees cut out, which results, of course, in less obstruction to the wind and very little protection from it unless the planted area is of considerable size. If a windbreak is most desired, the trees should be spaced much more closely in the row without so much consideration for size, in order that the branches filling up between the rows may reach the ground, shade out the weeds and grass, and make a dense shelter and an effective hindrance to the wind. A spacing of 2 by 8 feet gives good results in a windbreak, if the trees are arranged alternately in the rows, but for a timber or post plantation most trees may be set 8 by 8 or 10 by 10 feet and cultivated carefully.

The number of trees required to the acre with the various spacings is:

Spacing, Feet.	Number of trees.
3 by 3.....	4,840
3 by 4.....	3,630
3 by 5.....	2,904
3 by 6.....	2,420
4 by 5.....	2,722
4 by 6.....	2,178
4 by 8.....	1,815
5 by 5.....	1,361
5 by 6.....	1,172
5 by 7.....	1,244
5 by 8.....	1,059
6 by 6.....	1,210
6 by 8.....	907
6 by 10.....	726
8 by 8.....	680
8 by 10.....	544
8 by 12.....	453
10 by 10.....	435
10 by 12.....	363
10 by 15.....	290
15 by 15.....	193

Cultivation is just as necessary in establishing a successful plantation of trees as in other lines of agriculture, and the results are proportionate to the amount of labor expended in keeping the soil loose and free from weeds. It is a mistake to suppose that trees can be grown in a weedy or grassy area without some cultivation or protection from the more rapid growing plants. If a quick, healthy growth is desired, there is no more certain way of insuring it than to cultivate. No other factor goes so far toward lessening the loss resulting from insufficient moisture. To be most effective, cultivation should be begun at least one year before the trees are planted.

Neglect of Planters.

A large proportion of failures in plantations are caused by the negligence of the planters. Some men even go so far as to argue that native trees receive only the care that nature gives, and therefore it is only necessary to plant them and they will care for themselves. No greater mistake can be made. Trees, the same as other plants, need attention if they are to do well; and cultivation, which has for its object the prevention of the growth of weeds and grass and the conservation of moisture, encourages the growth of the tree most effectively.

Cultivation should be shallow. The roots of many trees run close to the surface of the soil, and if these are injured by cultivation the tree may be stunted.

Cultivation should take place as soon as possible after a rain. This forms a dust mulch, which is the best means of saving the moisture in the ground.

Cultivation should not be continued after the middle of July. This is to prevent the development or growth of new wood late in the season which may be injured by severe, early frosts. The danger from this source is greater than is realized ordinarily; oftentimes hardy young trees are killed back to the ground following late cultivation.

Destroy the Weeds.

Don't let the weeds get so high that a plow must be used to destroy them. They rob the trees of moisture, and the plow will injure the fine tree roots.

The object of thinning is to rid the stand of those trees which, because of either their unhealthy condition or crowded position, are retarding the growth of the more desirable individuals. The principle is the same as in other crops which are thinned to promote the best development of a portion rather than a poor growth of the entire crop. When trees are young, they are very sensitive to conditions around them, and if they are crowded the tendency is toward a stimulation of growth and an improvement in quality in the thrifter individuals and a failure in the poorer class. This process, which is entirely natural, disposes of a great many of the weaker trees, but if continued too long may stunt some of the best trees. It is at this stage that thinning becomes a necessity and the weak and deformed individuals are removed. Need of thinning is indicated when there are many dead or dying trees in the stand, or when the trees are very slender in proportion to their height. A stand in need of thinning often has the crowns of all the trees densely matted or so closely interlocked that growth apparently has ceased. If the condition of the stand is such that the growth will not be lessened, it is more satisfactory to postpone the thinning until there is enough merchantable material to pay for the cost of removing it from the stand. The first thinning will yield fuel and small posts, and if the poorer material is removed every time each subsequent thinning will yield bigger and better material for the farm uses.

Lower Costs for Hogs

Good Pastures, Especially Alfalfa, Will Help With Gains

By F. B. Nichols, Associate Editor

SPECIAL ATTENTION is in order this year with the pasture crops for hogs. In no other way can the maximum results be obtained from the excellent pork outlook—and it is good despite the objections which have been made by some men. The Food Administration has announced that the "13 to 1" ratio will be maintained with the prices of the hogs produced this year, which is a mighty satisfactory guarantee to Kansas hog raisers who have had experience with the uncertain markets of the past.

In producing these animals, however, the value of taking the greatest possible advantage of every factor that will lower the cost of production is obvious. Probably nothing is more important in this respect than to so handle the hogs that the greatest possible gains will be made on pasture. This is especially important on a considerable number of farms where it has been planned to increase the hog production this year. On many places a larger number of hogs was bred than usual, while on others it is probable that such good care will be given at farrowing time that the number of pigs saved will be much increased.

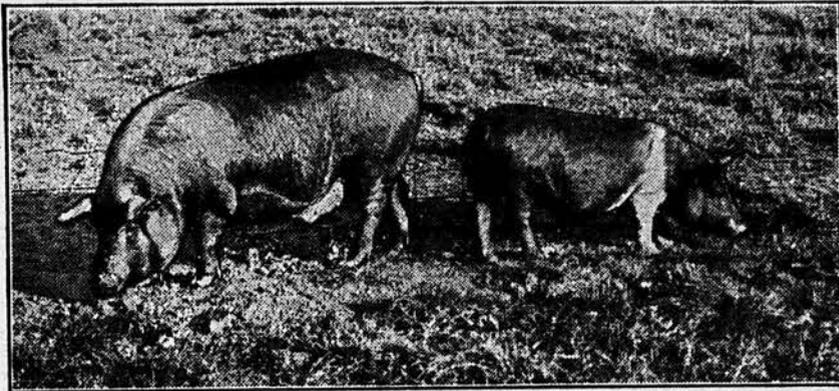
But on all places the importance of pasture crops should not be lost sight of. The crop or crops to grow for this purpose is largely a local problem, depending to a considerable extent on the adaptations of the crops. Fortunately the hog will make satisfactory gains on a great range of crops. Alfalfa is the most important hog pasture crop in Kansas, as might be expected, and it is the crop to tie to where it does well. Many breeders have reported excellent gains on alfalfa. Its high proportion of protein makes it especially valuable for growing pigs and sows. Much better gains are made by the animals when the growth is fresh and tender, and when it begins to get old and woody it will pay to mow the field. More attention to this is much needed in Kansas on many places. If the field is large some growers rake the hay and stack it; most men, however, allow it to remain on the ground.

Clovers are Used.

All of the clovers, especially Red clover, are used for hog pasture with good results. And among the pictures of rural scenes that are beautiful and significant, that of a drove of hogs in a field of Red clover is worth more than a passing notice. Especially is that true when you consider the rapid gains that young shotes can make on such pasture, with the further fact that pork is worth real money these days.

Another hog pasture crop that has been coming to the front with great success in the last two or three years in Kansas is rape. This excellent crop frequently is sown with oats, and some years in Southern Kansas it will provide feed until Christmas. Some growers prefer to have a field of rape, or rape and oats, to use along with alfalfa or clover, running the hogs on both crops. Many men believe that more satisfactory and cheaper gains are produced by such a combination.

In Central and Western Kansas great dependence is placed in the sorghums as pasture crops for hogs—that is true on a few places even in Eastern Kansas.



Litter Mates (Hampshire Crossbred) But 69 Pounds Difference in Weight After 120 Days Alfalfa Pasturage. The Big Pig Had Some Corn.

All the crops are used, even broomcorn being planted for this purpose on a good many places in Southwestern Kansas. Of the crops I think that perhaps Sudan grass is the most satisfactory, on the soils where it will do well, taking the state generally. That is especially true in the country west and south from Hutchinson. All of the other sorghum crops are grown for this purpose, too, of which Kansas Orange sorghum is among the more popular in the eastern half of the state. It is a mighty fine thing when one has even a small planting of alfalfa or some of the clovers for the hogs to run on even a little while, as these legumes will supply the protein that is lacking in the sorghums.

Many other crops are used, especially prairie grass. Hogs usually are fond of the bluestems and make good gains on these grasses in the spring. That also is true with Buffalo grass under most conditions. Many common weeds are eaten readily by hogs—that is especially true with horse weeds and lamb's quarter.

Clear Thinking.

This adaptation which the hogs have for a great range of crops and the high prices for hogs and grains have brought many interesting things into the foreground. All "dope" on which hog raising operations have been based is off—clear thinking is in order this year. Supposing a man has good alfalfa pasture, how much grain, for example, should the growing shotes be fed next summer? The answer, of course, will depend on the local conditions, but I'll bet this much—it will be a whole lot less on an average than usual.

If that is the case how far should a man go in trying to get some of the weeds or sorghums to balance up in a more or less effective way the protein in the alfalfa? For example, suppose you live in Greenwood or Woodson or Neosho counties where horse weeds and lamb's quarter grow with enthusiasm along the creeks or in waste places. You never made any effort to haul this feed to the hogs when they were worth \$4 or \$6 or \$8 a hundred, and corn was cheap. Can you do this at a profit when hogs are worth \$16 or \$17 a hundred, with corn \$1.50 a bushel and mighty scarce at that? Or could you better afford to grow a patch of rape?

I cannot answer I am sure, but I do know that we are against a set of absolutely abnormal conditions in produc-

ing pork this year. We have been talking of food substitutes for ourselves all winter; I think now that it will pay mighty well to take stock of some of the feed-substitutes for hogs. Every man knows of some of these additional crops which are adapted to his farm; he has perhaps preferred not to bother with them in the past, in normal times. But now, if I judge the situation aright, I think that the men who have but little corn left and who will have a big bunch of sows farrow will do some very earnest thinking along this line.

Most of the leading hog raisers of the state—the men who have made the money—believe that the methods used by many average men could be made much more efficient. Certainly the factors of importance in feeds and feeding deserve more study than ever before.

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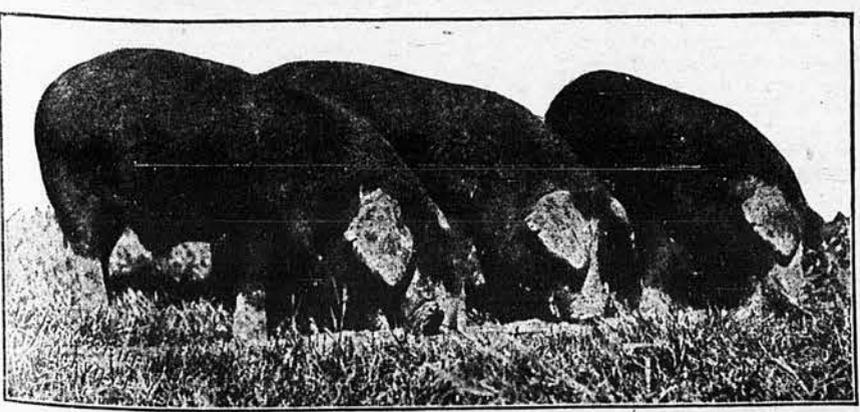
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To Aid in Farm Production

From an Address by Governor Capper February 4 Before the Farmers' Union County Convention at Smith Center

ALL THAT YOU farmers of Kansas wish, as I understand it, is even-handed justice; an absolute square deal for every man, woman and child within the borders of this state, and on that proposition I stand with you, heart and soul.

I don't believe there is any great danger of farming ever getting in the profiteer class. Before many years I think profiteering will be put out of business entirely. I hope that time will come soon. But I do believe that every thinking man wishes the man on the farm, and the farm industry, to thrive and prosper. That it has not had a square deal and is not getting one now, is mainly because in the game of grab that is going on, it has been unable to assert its rights, or to have them asserted for it, and the greedy fellows are taking advantage of it as they always have done.

Just now, how to support his family and save his country, is the man-sized job nearly every Kansas farmer has in front of him, and the profiteers are largely to blame for it. The general public doesn't yet know, nor understand, what a heroic fight is being made on Kansas soil. Notwithstanding 2 acres out of every 3 failed to produce a crop at our last harvest, leaving our wheat raisers with 6 million unproductive acres, they have gone ahead and planted a war crop of 10 million acres, in a year so disastrous to them that Kansas fell from sixth place in the ranks of big crop-producing states to fourteenth place. No such slump in our relative standing has ever occurred before. Then the price fixed for wheat, in many instances, took away the last chance many of our grain farmers had for "breaking even." Some of them even had to borrow money to buy seed for the new crop. Despite these great obstacles, despite the labor shortage and the large number of Kansas boys who have gone from the farm into the army or the navy, the farmers of Kansas somehow have managed to put in a record-breaking acreage, notwithstanding. I don't know any finer example of Kansas pluck. The nation has had no finer demonstration of patriotism by any state or industry since the war began.

Away With Profiteering.

I hope, somehow, we shall pull thru. But if it wasn't for the profiteering from which our farmers are suffering greatly, despite the regulating that has been done higher up, we should have a fairer chance to pull thru, notwithstanding the complication of our farm labor shortage and the extremely unfavorable condition of the growing crop up to this time.

In its price-fixing higher up, the government apparently has been too largely influenced by the interests it has attempted to regulate instead of dominating them. It invited them in, virtually to make their own terms. The one exception was the farm industry, which in the opinion of few farmers was really or adequately represented. The coal operators, to use the words of Emerson Carey, state fuel administrator for Kansas, "are bigger than the Fuel Administration." The fact is that the word of this and that interest has been taken in the fixing of prices, and their representatives have been put on boards appointed to administer price regulations. I fear we haven't much cause to expect relief from them. The packers, who sold "embalmed beef" to the government during the Spanish-American war, are today compelling Uncle Sam, and the men who are going to the trenches to fight for them, to pay from two to four prices for leather goods and footwear. The packers will be allowed to make 9 per cent profit on meat products, which they have always declared they produced at a loss, and 15 per cent on the rest of their products.

We cannot expect much relief from greedy combinations which have never shown they had a conscience nor a particle of integrity in regard to obedience to law. We cannot expect big business to do other than take the best care of itself, nor to be very fierce with any of the jobbers and its other customers whom it catches profiteering.

And when it comes to the profiteering

evil, the government, apparently, thinks only of the cities. I have sent many letters to Washington to show that it is even a more serious and far-reaching evil in the country. An effort has been made to regulate the price of mill feed. It has been regulated between the mill and the handlers of the product, but the stock feeders are receiving the benefit in so few instances that many have had to quit and there has been a landslide of half-fat stock sent to market, which later on, if not now, we shall need woefully.

There are entire districts in our best livestock producing region that were able to produce little or no feed last year, and in these localities stock feeders are being held up even for hay and roughage. Ninety dollars profit on a car of hay is an example of middleman's profiteering which comes to me from Colony, Kan. The hay was bought by the dealer for early delivery and left on the seller's hands. There was no shortage, scarcely any money had been paid, the dealer got his \$90 profit simply for billing it out of Colony. The farmers of that vicinity sold their hay at fair prices, ranging from \$13 to \$18 a ton, but the buyer is compelled to pay the middleman a profit of \$7 to \$10 a ton just for handling the hay.

These high prices for feed, and the methods of the packers, are forcing the feeder and small farmer out of the livestock business, a business which is of crucially vital importance just now. Altho his county, Anderson, is more of a livestock than a grain-growing county, my informant writes me that cattle are disappearing from the locality as the snow vanishes in the spring, while barns are full of hay that has been bought at low prices.

Elk City Prices.

An Elk City farmer sends me a copy of a letter he wrote to President Wilson quoting prices he pays in his local market and the prices he gets for his products. These are the prices he pays:

- Coal, \$8 to \$10 a ton.
- Unbolted corn, wheat or kafir flour, \$5 a 100 pounds.
- Packing house meat, 35 cents to 50 cents a pound.
- Fresh pork, 20 cents to 35 cents a pound.
- Fresh beef, 14 cents to 30 cents a pound.

These are the prices this Elk City farmer gets:

- Dry cow on hoof, 4 1/2 cents to 6 1/2 cents a pound.
- Fresh eggs, 36 cents a dozen.
- Fresh butter, 36 cents a pound.
- Sweet milk, 25 cents a gallon.

A Rankin farmer writes me:

Feed is so scarce there that he has to pay 6 1/2 cents a bundle for maize for his cows and the cream check he gets doesn't pay the cost of their feed.

"I live 20 miles from a railroad and have to haul my wheat and sell it for \$1.94 a bushel, while I pay \$60 a ton for bran for my cattle. I can haul 1 1/2 tons with four horses and it costs \$6.65 to feed my horses and myself at the hotel over night, so you see that leaves me a margin of 35 cents between 1 1/2 tons of wheat and 1 1/2 tons of bran, to say nothing of the labor of hauling."

If we don't pull Uncle Sam out of the hole, I don't know who will pull him out. He seems well convinced of that himself. But so far, while our farmers are facing a shortage of labor, a scarcity of good seed, high interest charges, high prices for feed and seed, the lowest condition for winter wheat we have ever had at this time of year—and the loss to the ranks of better paid labor in the cities, of as many trained farmers and farm hands as we have sent to the army and navy—Uncle Sam has signally failed to give us the same degree of protection he has given the great profit-producing organizations. The packers get their 9 to 15 per cent, the railroads their regular dividends, the immensely wealthy steel trust has a generous margin of profit, the millers are well taken care of and the coal barons are charging higher prices than last year. But it is up to the farmer and stock raiser to take care of himself as best he may, foregoing his own profit, but paying profiteer rates to all others while doing his utmost to stand loyally by Uncle Sam in this death-grapple.

I don't believe it was intended to put

(Continued on Page 11.)

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Bees Must Have Good Care

Why Not Increase the Kansas Honey Crop?

BY E. L. COOMBS
Holton, Kansas

MANY FARMERS who have from one to six stands of bees get little profit from them because they do not give the bees proper attention. Bees need little attention, but they need that "little" as badly as corn needs plowing. A good stand of bees should produce from 25 to 200 pounds of surplus honey according to the year. I know of farmers who do not get nearly what they should because they have not provided room for the bees when gathering was good.

The bees should have plenty of honey in the hives at this time of the year because they begin to raise brood, or young bees, about February 1, and require more honey at that time than before. If they do not have plenty of supplies the bees will not begin to raise brood until gathering time, and consequently there will be fewer bees to begin gathering. Then they must devote their time to raising bees at gathering time, and before the young bees have become strong enough to do good work the best part of the honey harvest is gone. Be sure to have the colonies strong and in good condition when gathering begins, and to do this the bees should have plenty of supplies now.

Section Honey.

If one has but a few colonies he should work for section honey, as the apparatus for extracting honey is expensive, altho from two to three times the amount of honey can be produced by extracting. The combs can be replaced in the hive and the bees will readily refill them, while if the bees must produce the wax it takes longer. If a super is to be put on a hive it should be directly on top and when filled be taken off and replaced by an empty one. The full super should be placed on top leaving a space between the full super and the brood chamber. The bees do not like space between the honey and will work hard to fill it. When putting on a third super the empty one should be placed between the two filled ones.

When hiving a swarm a sheet of comb foundation should be used for these reasons: The bees will build straight combs; the sheet saves the bees the work of building comb, which will pay for the comb foundation itself, and the bees will not make a drone comb of the foundation. Drone cells are like the worker cells, only larger. It is a good plan when possible to cut the drone cells out of a frame, for very often the bees will replace them with worker cells. Only standard size frames should be used.

A Bee Tree.

If you have a swarm in a box or a hollow tree the bees may be transferred. Some day when the weather is not cold enough to chill the brood, open the box containing the bees without breaking the combs. Bluff the bees with plenty of smoke and brush them from the combs, then cut off one side of the comb, leaving a straight edge. Place the comb in the frame with the straight side up. Wrap a string around the whole frame, then place in the hive. When the large pieces of the comb have been placed in a frame and the frames are in the hive put the hive near the bees and start them in as you would in hiving a swarm. In this manner you will save a large share of the brood and the bees will not suffer a setback. The same method may be used in removing bees from a tree if care is taken that the tree does not fall hard enough to break up the combs.

When working with bees be calm and deliberate, and if a bee buzzes around you don't fight it, for it will fight back and it has good companions, too. Sometimes a bee becomes disgusted with this operation and the worker is stung. Should this happen remove the stinger at once and blow smoke from your smoker on the wound to kill the smell. When one bee stings his companions have a tendency to repeat the act.

Some bees are more quiet than others. German Black Bees well deserve the name given them because they are always looking for trouble. The Italian Bees are more quiet and, therefore,

more desirable. Almost any locality will support 15 or 20 colonies so the location for a beginner or a person keeping only a few bees need not be considered especially.

To obtain the greatest amount of honey the bees should be kept from swarming as much as possible. But this is a difficult matter. When a colony is getting ready to swarm queen cells are built and eggs deposited therein. After these queen cells are sealed the swarm issues from the hive. In seven days the queen cells begin to hatch and then every queen leaves the hive with a small bunch of bees. These are called "after swarms." If the colony decides it is too weak to swarm any more it allows a queen to hatch and then destroys the remaining cells. It takes the young queen from 8 to 10 days to mate and begin laying. You readily can see that when a swarm goes thru all these operations it is bound to be reduced in strength. The best way to prevent swarming is to give bees plenty of room to store honey and plenty of ventilation.

Let's have more of the Kansas honey crop gathered and used in place of sugar.

A Cold January

The last five months have broken the drouth record for a similar period in the 60-year history of the weather record at the Kansas State Agricultural college. The precipitation in September, October, November, December and January was 3.62 inches, which is 4.41 inches below normal for the five months.

The month recently closed was the coldest January with but two exceptions in the history of the agricultural college records, which date back to 1858. It was the coldest January since 1886. The mean temperature for the month was 17.03 degrees, or 11 degrees below normal.

The lowest temperature was 18 degrees below zero on January 12, while the lowest for the month since 1858 was 28 below, January 8, 1912. The snow fall was 6.75 inches, which is above normal.

The number of days on which the thermometer registered zero or below was 13, which has been exceeded only once during the same month at this station. In January, 1888, there were 14.

To Aid in Farm Production

(Continued from Page 10.)

farmers in the hole in this way. I don't think we should hold Uncle Sam too strictly to account in this time of great extremity for his apparent discrimination, but I cannot help thinking if the producers had been called in for consultation as freely as were millers, wholesalers and the representatives of various branches of big business, we should not now be so terribly hampered on all sides, and thousands of half-fat cattle would not have been shipped to market when every source of human food should be developed to the maximum. The Kansas City cattle market in recent weeks has been swamped at times by the heavy receipts of this class of stock. Even dairy herds have gone to the block.

We are now supposed to be straining every nerve at conservation, but a conservation policy which does not conserve, promote, and protect the thrift and progress of the American farming industry—the source of all our strength and vigor as a nation—is a mighty short-sighted policy.

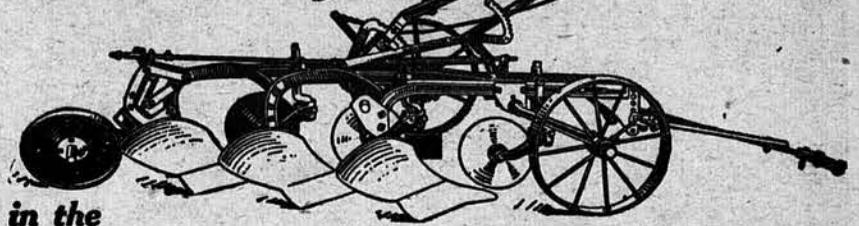
A Reward for Efficiency

I was satisfied when we elected Arthur Capper as governor, and now seeing the way he has handled the affairs of the state during the time he has occupied the executive chair I think we should not cease until we elect him United States Senator. There never was a time when we needed great men in the United States Senate more than we need them now. Harvey Wells.

Kingman, Kan., Route 1.

Eat no beef or pork on Tuesday.

Get These Tractor Plow Advantages



in the

JOHN DEERE TRACTOR PLOW

John Deere Bottoms—the world's standard for three-quarters of a century because of their better wearing, and better seed-bed making qualities.

John Deere Quick Detachable Shares—stronger and closer-fitting than other shares.

High and Level Power Lift—lifting mechanism simple, strong, absolutely reliable—no chains or sprockets to cause trouble.

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full depth instantly and stay in the ground.

John Deere Special Steel Beams—guaranteed not to bend or break—locked to axles by the John Deere power lift—the simplest, strongest construction.

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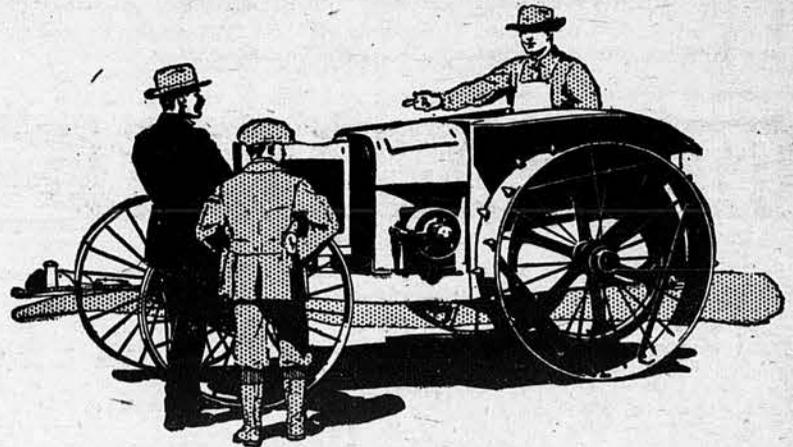
These advantages give special value to John Deere Tractor Plows in actual use. They increase the user's profits. And there are other advantages.

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Write today for our free booklet describing fully both the No. 5 and No. 6 John Deere Tractor Plows. Ask also for our big 156-page book, "Better Farm Implements and How to Use Them." A text book on farming. Use it as a reference book. Worth dollars. To get these books, indicate the farm implements in which you are interested and ask for package TP-410.



JOHN DEERE, Moline, Ill.



Your Boy Can Run a Parrett



Solve your farm labor problem with a Parrett.

For five years farmers have been using the Parrett Tractor in practically every part of the United States and have found it unusually easy to operate, remarkably simple in construction. Boys and women can easily do a good days work with a Parrett.

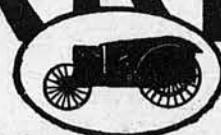
It is a one-man machine. It is self-steering in the furrow. No special hitch is required. A sensitive governor insures at all speeds a minimum of fuel consumption. And it possesses many other equally convenient—equally practical features.

The Parrett will pull three 14-inch bottoms, run a 20-inch to 26-inch separator, plows at a steady speed of two and three-eighths miles per hour, burns kerosene and is made by a firm whose entire energies are spent in making good tractors. Write for the catalogue now.

PARRETT TRACTOR CO., 444 Fisher Bldg., Chicago, Ill.

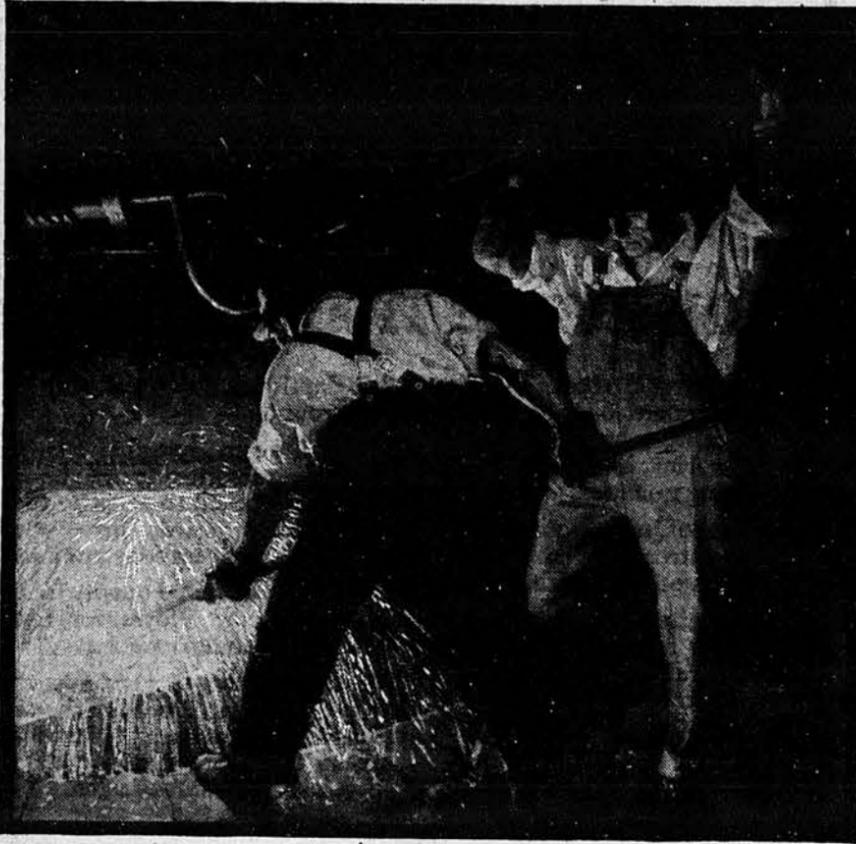
PARRETT

12



25

Blue Buckle Overalls Union Made



The nation's economy work clothes!

Engineers, farmers, mechanics—men who do world's work of every sort every day—wear loose-cut, roomy guaranteed Blue Buckle Overalls for work *comfort* and work *economy* because they are scientifically "oversize" where strain, twist or pull hits hardest!

Blue Buckles give more service than is expected, or *demanded!* Every trying test proves their exceptional merit. Seams are *guaranteed not to rip*—they last the life of the best indigo blue denim used in their manufacture. A solid reinforced backband takes the place of the old style V-vent. *It can't rip out!* Blue Buckles union workmanship is the best!

Your best notion of overall value will be exceeded when you get into a pair of Blue Buckles!

Jobbers OverAll Company, Lynchburg, Va.
Largest Manufacturers of Union Made Overalls in the World



Win the War By Preparing the Land Sowing the Seed and Producing Bigger Crops

Work in Joint Effort the Soil of the U. S. and Canada—Co-operative Farming in Man Power Necessary to Win the Battle for Liberty.

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

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

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

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

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

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

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

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

U. S. Employment Service, Dept. of Labor

Jayhawker's Farm Notes

BY HARLEY HATCH

**Calves Make Good Gains.
Consider the Seed Situation.
Success Thru Co-operation.
Large Profits on Grass.
High Rents for Pastures.**

LAWRENCE STERNE, who wrote 150 years ago, remarked that the Lord tempered the wind to the shorn lamb; we are thankful today that we have not been too closely shorn for there has been no tempering of the wind for the last two weeks. This morning the mercury was again below zero for the fifth consecutive time but there is a show for better weather soon; the sky is clear, the wind is in the south and every day brings us nearer to March. Sad to relate, however, the groundhog could see his shadow and long before this must have scurried back to his hole to remain another six weeks—perhaps.

When a fellow turns out of a job choring on this farm he can always hitch up and go to the creek for a load of wood. I am not always looking for a job, tho, and often prefer to loaf. But the wood business is urgent this winter so I cannot recall a time when we have had less real leisure than during the last two months. Records show that December and January just past were the most severe winter months of which we have any knowledge in Kansas. If there is anything to the theory that severe winters are followed by good crops look out for a big year in Kansas, for the heaviest harvest in years is due us.

The calves which we have been feeding are gaining as well as could be expected during zero weather. We have not increased their grain ration during the last month and probably shall not during the next 30 days if they continue to gain. We are now giving them all the bright alfalfa hay they will eat and if we can make them gain on that we shall do so and save the corn, for we have more hay than we have corn. It will take longer to make them fit for market, of course, but, as the old saw has it, what is time to a calf?

As well as the stock like alfalfa hay there is one other feed we have which they prefer—kafir fodder. I know that kafir will not make the gain on stock alfalfa will but it seems more palatable to them, and the calves will leave the alfalfa in their rack and beg for kafir. The horses prefer alfalfa, however, to anything else we can give them and will eat it in preference to oats or corn. Our supply of kafir fodder is due to run out soon and after that the diet will have to consist of corn fodder instead. By that time wet weather will perhaps have set in; if that should be the case, the kafir will not then be so well relished.

A friend writes me from Leroy, Kan., to say that he also was living in Nebraska at the time of the blizzard of which I wrote last month and knowing this, his neighbors often ask him if I have not overdrawn the picture a little regarding the fury of that storm. He tells them that I have not and remarks to me that no one who has never experienced a real blizzard can imagine how terrible it is. I know that many persons think I draw the long bow in telling about that storm but I can assure them that I have not the language to portray it in its full fury.

Our Leroy friend was born in Canada and takes exception to what I said about feeling the cold less in the South than in the North. He says that when a boy in Canada he never had such a thing as underclothes and despite that never felt the cold there as he now does in Kansas. I think that can be explained by his own words "when I was a boy." A boy does not feel the cold; even if he is really freezing he cannot take time from his pressing affairs to suffer. I think that as a man grows older he should move farther south, especially in the winter.

Another friend writes from Marion, Kan., to ask when I think the war will end and what terms should be offered by all nations which will in honor to all bring the conflict to a close. I am

afraid no terms can bring the conflict to a close and leave Germany any honor; its honor took flight with the sinking of the Lusitania and the pillaging of Belgium. I don't know why this friend should imagine that I possess powers of second sight. I can't foretell at what date the war will close but I conclude this much, that it will close when Germany has been defeated decisively. As to the terms, I think Germany would like to quit any time it could get an even break but it will fight for a time longer rather than pay for any of the damage wrought. The Germans remind me in their present attitude of a neighbor we used to have in Nebraska; he borrowed a wire stretcher of us and failed to return it. When we went after it he hastily shoved it into the wagon as if he was afraid we might catch sight of it. Noting this, we took pains to look at it and found it broken almost beyond repair. When asked what about it he replied, "You get it fixed and I will pay for it if it don't cost more as a quarter." I think Germany would quit right now if she could get out on the same kind of terms.

I have during the last week received many letters of inquiry asking for all kinds of seeds from half a bushel of corn to a carload of oats. Most of them say that if I have none for sale they would like to have me get the amount together from the farmers of the county. Much as I should like to accommodate them and knowing as I do their needs I cannot go into the seed business. I have my hands full of work that must be done and I shall have to let the seed business be done by men who make that a business. During the last two weeks I have had inquiries for no less than 16 carloads of seed oats. The first of these calls I turned over to a firm which had 2,500 bushels located, but after that I could not take time to locate any more. I think you will find the advertising columns of the Farmers Mail and Breeze containing offers of about all the seeds you will need.

I note by recent reports that the Farmers' Union is very strong in Nebraska, their membership now being 35,000. They are working on a little different lines from the Grange and are going into co-operative business on a rather large scale. This organization now owns 100 elevators, 37 general stores and operates coal and lumber yards at many points in the state. The members also have what is called an exchange at Omaha which is in reality a wholesale house, and this house did a business amounting to more than 2 million dollars last year. If they will stick to conservative business methods and procure good managers there is no reason why their affairs should not prosper, especially if they practice real co-operation and do not try to make large dividends for the stockholders but rather return the profits to those who buy and sell. I rather think the men in business life in Nebraska have not been so liberal with their customers in the past as have those in Kansas and for that reason enterprises like the Farmers' Union are likely to strike a stronger root there than in localities where business men are more liberal.

Last season was the most prosperous one the owners of grass fat cattle ever knew. Time alone will tell whether the coming year will prove so good for owners of pastured cattle, but pasture owners are going on the theory that it will. It is not probable that we shall have so good a pasture season as 1917 was; it is very seldom that August has as much rain as it did last year and for that reason we cannot expect stock to make the gain in the fall they did in 1917. I know of no mature cattle being pastured for less than \$8 a head for the five months beginning May 1 and ending October 1. From that low level the price mounts to as much as \$12.50 a head in some extra good pastures where plenty of grass and water is certain. The average price charged in most neighborhoods in this part of Kansas is \$9 a head for mature stock. For cows with calves the price is still higher.

Why Our Club's "Different"

After All, Pork Production Isn't the Biggest Thing

BY JOHN F. CASE, Contest Manager

I HAVE no children of my own," said Arthur Capper at the pep banquet, "but I take joy in doing what little I can to help the sons and daughters of my friends."

"You know Billy," a small club member who crowded close to me at the first memorable pep meeting kept repeating, but I didn't know Billy. Puzzled, I finally asked, "Whom do you mean, Frank, Billy Robinson?" A look of chagrin spread over the lad's face. "Well, Mr. Case," said he, "I had clean forgotten that you didn't know Billy. At our house we talk about you so much that you seem like



Verne Landreth.

one of the family. I mean Brother Bill." "When I write to you or to Mr. Case," said a member, who came to the pep meeting, in a letter to Earle Whitman, "I feel just as if I am writing to some of my relation."

Why It's "Different."

Folks keep asking me why the Capper Pig Club is so "different" and why it is so unusually successful. Since our club work was given nationwide publicity in the eastern magazines inquiries have come pouring in from every section of the United States and just the other day I had a visitor who is taking up club work in Colorado. He made the long journey to get first hand information about what we are doing and he seemed to be pleased with what he learned.

There is no secret about the success of the Capper Pig Club work. The opening paragraphs tell why it is successful. It is successful because the folks who are promoting it have a genuine heart interest in the welfare of the boys and their folks. The response from the folks who make up the club has been generous and sincere. The Capper Pig Club has become one great family, and this year in a greater degree than ever before we are bound together with ties of a common interest—the winning of the war. We have four club members who have joined the army. Many of our members have brothers who soon will be in France. The contest manager has a nephew on the firing line, another is entering the aviation service and two years ago he lost a dear nephew, the older brother of these boys, who was killed in the French trenches. Curtis was a soldier-of-fortune sort of chap who went to Canada to get into the big scrap, and now his brothers are out to avenge his death and to defend us folks at home. May my nephews and your dear ones come safely back to us.

Get Into the Game.

Now don't you boys who are hesitating about joining the Capper Pig Club think it would be worth while to get into a family like ours? These boys who have joined in the counties that

have complete membership since last issue think so.

CLOUD COUNTY.

Name	Address	Age
Monroe Simpson, Clyde		12
Clarence Paulsen, Concordia, R. 5		11
Floyd Spear, Jamestown		14
Loren W. Townsend, Concordia, R. 4		17
Harry H. Mann, Glasco		16
Walter E. Johnson, Huscher		15
Henry Byrne, Ames		12
Orville Young, Clifton		12
Theodore Tilton, Concordia		18
Roy L. Law, Clyde		12

SUMNER COUNTY.

Earl J. Shaffer, Wellington		15
Raymond Leonard, Wellington, R. 3		15
Lew Snowden, Caldwell, R. 4		14
Claude E. Hall, Wellington		13
Mason Sealock, Mulvane		14
Gould Fitch, Ashton		14
Harold Zerkle, Portland		12
Clarence Williams, Caldwell		13
Waldo Gilges, Conway Springs		12
Earl Whealy, Wellington		15

Remember, fellows, that the date for enrollment closes March 1. There is going to be no postponement and no additional time given. We are not "begging" for more membership. No boy who has joined the club ever has regretted it or will regret it. Enough said.

Harvey Stewart wasn't the only Capper Pig Club member who won honors in the sow and litter contest conducted by Otis E. Hall for the Kansas Agricultural College. Ben Fridley of Wamego, Leonard Wells of Ottawa, Merrill Greenlee of Emporia, and Wallace Smith of Sterling also won. This made five of the 12 prizes won by Capper Pig Club boys including the championship, and of the other seven winners Melvin Jung of Lyons and Vance Lindahl of Clyde have enrolled for this year. Our boys competed with the same sows they had entered in the Capper Pig Club work. We are very grateful to State Leader Hall for the help he has given them.

Those Peppy New Boys.

Just because we have been talking about the work of the old club members does not mean that the new ones are not showing pep. Vance Lindahl of Republic and Lawrence Price of Osage have proved to be two of the live wires. John Billhimer of Hodgeman is hustling membership for his county and Ted Graham, the mightiest rabbit hunter in Harvey county, is there with the pep. Not every county leader for 1918 will prove to be a 1917 club member.

W. W. Jones of Clay Center, Clay county, is lined up with Vern for the father and son contest. Mr. Jones has been a real booster for the club. He attended a great many of the meetings last year and was "as much of a boy as any of us," according to Dan Vasey, the county leader. Mr. Jones is one of the best known Duroc breeders in Kansas and we can expect this hustling firm to go the limit in producing pork and pep. We now have 19 entries in the father and son department, but we mustn't stop there.

Stafford county boys had some mighty good times at their meeting last year. John Cadman, the county leader, showed pep. "All the boys thought I would be a large boy," wrote John after the first county meeting, "but I proved to be the 'runt.'" John's size didn't prevent his producing 1356 pounds of pork with his eight Duroc pigs and showing a net profit of \$239.40. Verne Landreth, who

won seventh prize in the contest, had seven Duroc pigs entered and produced 1851 pounds of pork. Verne's profit was \$254.84. This was the profit record when his contest story was written. Later sales put it up to more than \$300. John Rickert had a Poland entered. With five pigs he produced 480 pounds of pork and his profit was \$100. Edward Slade had a Duroc sow and produced 700 pounds of pork. He had four pigs entered in the contest and his net profit was \$119. Vern and John have lined up for the 1918 contest and they have five boys in line for the 1918 club work. There is certainly pep in that Landreth family. Mrs. Landreth and Verne are lined up in the Capper Pig Club work and Orin, a younger member of the family, has entered another pig club we are promoting, and which is being handled thru the Missouri Valley Farmer, a paper with nationwide circulation, owned by Arthur Capper. "The boys are mighty proud of their pigs," writes Mrs. Landreth, "and I am just as proud of the boys." Verne's 1917 record was one of the best made. I attribute part of his success to the fact that two of his pigs were named "John" and "Arthur." "John" brought more than "Arthur" did when he finally was sold. The seven pigs brought Verne \$340. Verne won seventh prize. Here's the story of how he fed and cared for his contest entry:

Pep and Pork.

"I bought my sow from Fred B. Laptad, of Lawrence, Kan.," wrote Verne. "She came March 10 and weighed 284 pounds. I named her Laptad's Queen. From March 11 to April 11 I fed 8 pounds of milk, 8 pounds of table slop, 3 1/2 pounds of bran and shorts, 1 quart of corn and 1 pint of oats daily. I soaked the corn and oats and always gave her warm slop. I fed her three times a day.

"Queen farrowed April 11. She brought me seven of the finest pigs I ever laid my eyes on, and raised every one of them. They weighed 22 pounds, averaging 3 1-7 pounds each. The first day I just gave her warm water to drink; the second day warm water and 4 pounds of milk, 2 pounds of bran and shorts and 1 pint of soaked oats. The third day 5 pounds of milk, 2 pounds of bran and shorts, 1 pound of soaked corn and 1 pint of soaked oats. I continued feeding her the same each day till they were a week old. The second week I gave her 3 pounds of bran and shorts, 1 pint of soaked oats, and 8 pounds of table slop, daily. The third week I increased the feed a little. The fourth week 3 pounds bran and shorts, 12 pounds of milk, 8 pounds of table slop, 2 pounds of corn, 1 quart of oats. At 1 month old the 7 pigs weighed 106 pounds.

"The first of July we fixed a woven wire fence around a grove that had mostly mulberry trees. The pigs sure liked the berries. July 1, I began feeding four times a day, 6 and 11 a. m. and 4 and 8 p. m. I fed them 6 pounds of corn, 3 quarts of oats, 4 pounds of shorts, 2 pounds of bran, 8 pounds of table slop daily. After July 17 we did not turn them out any more but gathered weeds and alfalfa for them. I gave them 8 pounds of corn, 4 pounds of shorts, 2 pounds of bran, and 4 quarts of oats daily.

"August 1, I began increasing the feed till I fed 8 pounds of shorts, 4 pounds of bran, 12 pounds of corn, 6 quarts of oats, 12 pounds of milk daily. August 19, I began feeding one ear of green corn apiece a day. August 26, two ears of corn apiece and September 11, three ears of corn apiece a day.

"October 5, I did not feed any more soaked corn and oats. I fed 16 pounds of bran and shorts, 40 pounds of milk daily and two ears of corn apiece three times a day. I gave them 1 pound apiece of kafir heads a day beginning October 11. From November 11 to December 15, I fed them 30 pounds of milk a day and the same other feed as before.

"I named four of my best pigs Jewel and Goldie and Arthur and Johnie. The long slender one I named Arthur. He was the best seller as I got \$45 for him at 7 months old. He weighed 205 pounds. 'Johnie' was the biggest, fattest one. He was sure a booster. You could always depend on him to get the big ear of corn. I always saw that Queen and the pigs got all the water, ashes and coal dust they wanted.

"I want to thank Mr. Case for extending my time for purchasing my sow, and Mr. Laptad for letting me have such

(Continued on Page 37.)

INSURE AGAINST CROP LOSS!

WERE you one of the thousands of farmers who lost part or all of their corn crop last year because the corn, planted late, was still soft when a freeze came?

Farmers who had silos saved their soft corn last year. They are getting its full value today in silage fed to fattening stock. Under such conditions the saving in one season is far greater than the total cost of a

TUNG-LOK SILO

Economical, Durable, Serviceable!



Important Features: Simple construction. Built by any farmer in installments at odd times. No staves to shrink or expand. No hoops to tighten or loosen. Cannot collapse. Will withstand winds that would destroy other farm buildings. Will last a lifetime. Send now for full descriptive matter.

(Have good proportion for parties financially able to handle large territory.)

TUNG-LOK SILO & TANK CO.

412 Interstate Bldg., Kansas City, Mo.

The Road To THRIFT



which will give full details of construction and cost, and show you why The Huttig Safety Silo is the cheapest and best for you to buy.

The Silo frame is milled and fitted in our plant—Our record of 35 years is a Guarantee of Quality and Workmanship. 25% Less Cost in Erecting than any other Silo—Less Shipping Cost—Less Weight. Shipped in sections ready to set up—No Scaffolding—No Ladders—will not Buckle, and cannot Collapse. It will pay you to read our Free Catalog. Send for it NOW.

Huttig Mill Work Co. Dept. C, Kansas City, Mo.

AMERICAN HOLLOW TILE SILOS

The Indestructible Silo with thousands sold, every one standing and in use today. Write for special prices.

AMERICAN SILO SUPPLY CO. 302 Traders Bldg. Kansas City, Mo.

National Hollow Tile SILOS Last Forever.

Cheap to install. Free from trouble. Buy now. Erect early. Immediate shipment. Good territory open for live agents. Write for FREE CATALOG.

NATIONAL TILE SILO CO. D-511 R. A. Long Bldg. Kansas City, Mo.



UNION MADE KEY OVERALLS GUARANTEED You always pay more than the cost of KEY Overalls when you buy other kinds, no matter what price you pay—begin now and get your money's worth.

If KEY Overalls do not give you absolute satisfaction, get your money back or a new pair free.

BOYS' OVERALLS LIKE MEN'S

If your dealer is out of your size, write LAKIN-McKEY Ft. Scott, Kansas.



THE CAPPER PIG CLUB

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

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

Signed _____ Age _____

Approved _____ Parent or Guardian _____

Postoffice _____ Date _____

Age Limit 12 to 18

A Load of Culverts that went to One of Our Allies



When War Makes Time Precious and Labor Scarce

Governments turn to culverts that can be bought ready-made, shipped promptly, and installed quickly by unskilled labor.

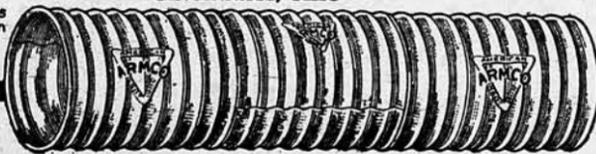
"ARMCO" IRON CORRUGATED CULVERTS

not only meet all requirements as to speed of delivery and ease of installation but they fulfill every demand for endurance and strength. The iron used in "Armco" Culverts is remarkable for its purity and evenness. If you have ever pulled an old hand-wrought nail out of a building that has stood for years, you will know that pure iron endures.

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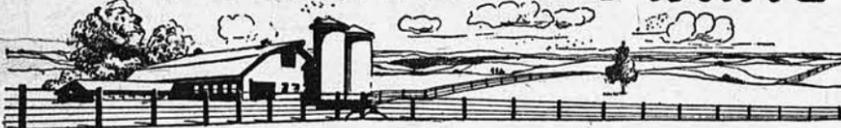
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Let's Consider the Leaders

Successful Farmers Deserve More Attention

BY F. B. NICHOLS
 Associate Editor

WE NEED a greater respect for the successful farmers of Kansas. This lack of understanding and belief in our leaders has been one of the greatest drags that farming in Kansas has had, and it is one that we should make every effort to get rid of at once. Until average men are willing to consider with greater care the methods of the more successful farmers we are never going to make the most progress in this state.

Men in other lines do not ignore their successful men to so great an extent as you will find among farmers, in many—not all—Kansas communities. For example, take with the merchants, lawyers or doctors, they may not like another man personally who has been successful, but they will, in almost every case, show the greatest possible interest in learning of the methods that he has used. And they hold many conventions, in which the best possible men in the different lines are hired to give addresses telling of their plans. And thus these lines have progressed.

Farming, however, has been developed too much on a basis of individualism. The very nature of the business tends to produce this, of course, which has been mighty obvious in the troubles which many co-operative movements have encountered. Agriculture has had a reputation of being a business of unorganized masses, in which every man goes alone, without the help of his fellows.

Now, however, the business is getting on a new basis, with the coming of the world war and the working of economic factors which slowly but surely would have brought farming into a better relation to other lines of human activity even if the war had not come, and the value of the factors of success in other lines must be considered more carefully. Of these the most important without doubt is the advantage of working together, and getting just as much from the experience of other men as possible. We have made some progress along this line in employing county and district agricultural agents, the main business of which is to assemble the available information about the best methods of farming in the home community for the benefit of all. A striking example of this is the excellent work done by E. J. Macy of Independence, the county agent of Montgomery county, and H. L. Popenoe of Emporia, the county agent of Lyon county.

Just take the probable range of successful effort in your own community. If you live in an average community you will find that some men lose but very few pigs at farrowing time—others may lose half some years. Some farmers or farmers' wives are almost never wrong in their operations with incubators; year after year their percentage of hatches is abnormally high. Other men have the ability to raise high yields of wheat, corn, kafir, oats or other crops. Some men are especially efficient with machinery. As a rule these things are known in a general

way, but too many men have failed to learn from this fountain of successful experience which is right at their doors.

A young man who is starting out in the farming business should take stock, so to speak, of these resources of his community. If he can assemble all of this information which he has at hand he will be mighty well qualified in the art of agriculture. In a great many cases he may find that an older man is not especially efficient in more than one or two lines. Indeed, it has been a thing often mentioned that a great many livestock farmers—very successful men—are not good crop growers. This is decidedly unfortunate. A closer union of efficiency in both crop growing and livestock production would be decidedly helpful.

But even if a man is not an outstanding producer in more than one line he may be especially efficient in that, so his methods may deserve even closer study. From out of the rich lifetime of experience you should be able to assemble information that will be of much advantage in making your farming more profitable and much more satisfactory.

Ewes, and Extra Care

If the ewes have been cared for properly during the winter, the amount of money to be made from the flock will still depend largely on the way the ewes are handled during the spring months.

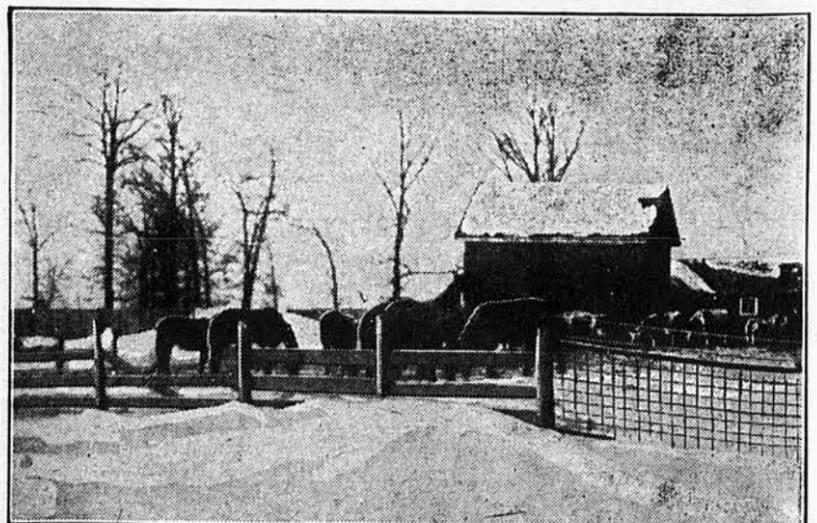
The ewes should be given plenty of room in the sheds around the feed boxes, as crowding or rough handling in any form may cause them to cast their lambs, which will be a serious loss to the farmer's bank account.

When the period of gestation, which is 147 days, is nearly up, the ewes should be watched more closely. Indications of lambing can be noticed a few days before the lambs are born. The ewe has a tendency to go by herself and is very restless, there is a dropping of the flanks and a red swollen appearance of the vulva.

Before lambing, the udders of the ewes should be trimmed of all wool and dirt, which might prevent the lamb from sucking, thus causing a bad udder.

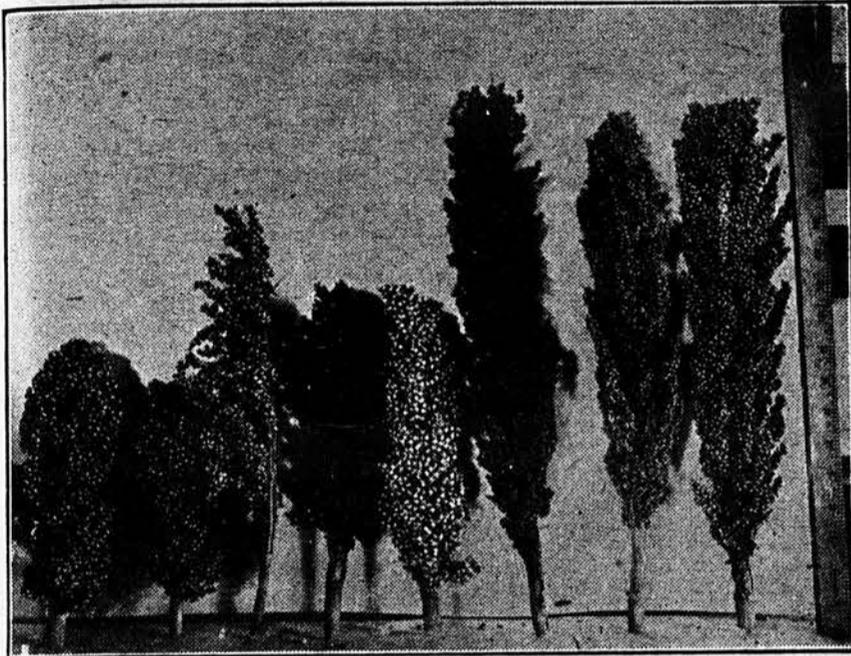
During the time the lamb is being born the ewe should be made as comfortable as possible; put her in a place free from draft, with plenty of good clean straw for bedding. The ewe should be left entirely alone and if everything is in good shape the lamb will be born with no further aid. Should the lambing be delayed an examination should be made to determine the cause and to see if the lamb is not in a normal position with its front feet ahead of the nose, with the head between the forelegs. Should the presentation not be natural or if the lamb is very large, aid should be given.

After the ewes have lambed they should be divided into different groups. One yard is required for ewes heavy in lamb, one for ewes with single lambs and one with twins, so each can have the care required.



The Opinions of the Successful Farmers—Men Who Own Their Own Farms—Should be Considered More Carefully by the Younger Men.

Types of Kansas Sorghums



From Left to Right: White Milo; Yellow Milo; White Kaoliang; Brown Kaoliang; Feterita; Red Kafir; Pink Kafir; Blackhull White Kafir.

Winter Aids the Soil

BY W. H. COLE

A few days of warm sunshine have made everything seem more pleasant. The cold spell hung on for a longer period than any spell of winter which we have experienced in recent years, and if there is any virtue in the theory that a severe winter means good crops we ought to have overflowing bins next fall. But the winter does not make the matter. It may help to the extent that it may cause the soil to work more easily in the spring but that is about all. The success or failure of next season's crop will depend entirely on the weather next summer. If we have timely rains and otherwise seasonable crop weather we may expect good crops, but if July and August are hot and dry and the hot winds make tinder of the corn tassels the cold snap, which has just passed, cannot in any way temper the hot blasts of that time or in any other manner assist the suffering corn to make a crop. But come what may Kansas usually manages to raise a pretty fair crop.

Despite the drouth the well on this farm seems to be gaining slowly. We cannot account for that fact either when wells on all sides of us are giving out. To begin with it is a most excellent well and is fed by a strong vein, but two months ago we were afraid it was going to go back on us despite the rumor that it never had failed. At the time we were most afraid that it would fail we were only watering about 15 head of stock from it but now 40 head are supplied from it daily. A well that will hold out in a long dry spell like the present one can be depended on almost any time, and we are extremely glad that the water in it is slowly rising instead of going in the other direction. We have no "hankering" for the job of hauling water during such cold weather as we have been having. We do not wish to be on that kind of a "water wagon."

Last fall when the final clean up was made of the wheat hauling several bushels of the choicest of it were sacked up and put away for our year's supply of graham bread, and a recent job was the grinding of a portion of it. By running it thru the grinder twice a most excellent flour was produced. We could have set the burrs in the mill close enough together to have made it fine enough with one grinding, but by doing so it seems to heat it quite a bit. We really do not know that the heating of the graham would injure it any, but we preferred to take the slower method and be sure we were safe.

The pile of poles which had been hauled up for our winter's wood supply was sawed up one afternoon last week, and when the engine was shut off the pile looked a great deal better to us than it did when we started. The wood

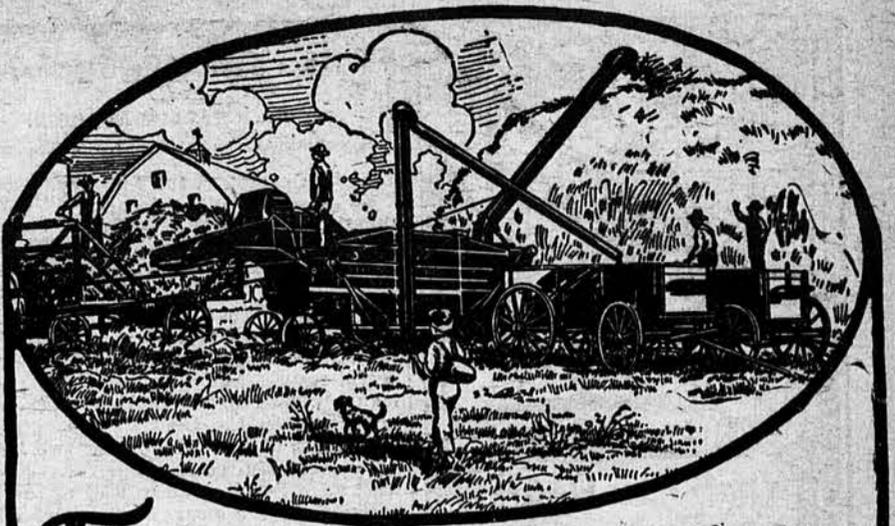
was seasoned Red elm and oak with a few dead hickories thrown in for good measure and good heat as well. This makes an excellent fuel for winter use, tho for holding fire overnight in the wood heater a green chunk is to be preferred. The rig was operated by a 5 horsepower gasoline engine and disposed of the wood so rapidly that it kept five men employed actively while it was running. A well equipped saw rig will dispose of a huge pile of wood in a half day.

When the Food Administration announced the program of meatless and wheatless as well as porkless days there were many country folks who asserted that the ruling applied more to the city dwellers than to them, and looked on the new rule with a sort of defiance. Many openly declared they would have what they wanted to eat when they wanted it. However, one hears but little of such talk now. The thinking people are reasoning that by obeying the rulings of Mr. Hoover and his associates they can in a way do their bit, and wheatless and meatless days are the rule in the majority of farm homes.

The hard freezes have no doubt been hard on the wheat that was not protected by snow. About one-fourth of the wheat acreage on this farm was swept clean of the snow by the high wind which followed it, and while the crop may be all right when spring comes it looks pretty sickly at present. The wheat that is covered with snow has a very good color, and when the coating of snow melts off there is little doubt but that it will at once begin to grow. A good rain would greatly improve the condition of all the wheat.

There will be a great deal of listing done in Kansas this season. As a rule the farmers make use of the warm spells during the winter to do considerable plowing, but as there have been no warm spells this winter there has been no plowing done. Where one has a deep soil the lister is no doubt all right, but on soils that are shallow it is our notion that the lister is an expensive luxury. In using the lister in a soil so shallow that the sub-soiler runs in the clay from one end of the field to the other the seed is deposited in a soil that is cold and ill-adapted to germinating the seed in anything like a satisfactory manner. For this reason a great deal of complaint is heard among the farmers every spring about having to plant the lower field, or some other field, over.

There is one way in which we use the lister that we really enjoy and it has always proved profitable, too. This is to first plow the ground very shallow with the 12-inch gang plow. We usually try to run the plow to the depth of about 2 1/2 inches. We usually try to do this plowing quite early in the spring, and when the weeds have had sufficient time to start we go in with the lister and list just a little deeper than the ground was plowed.



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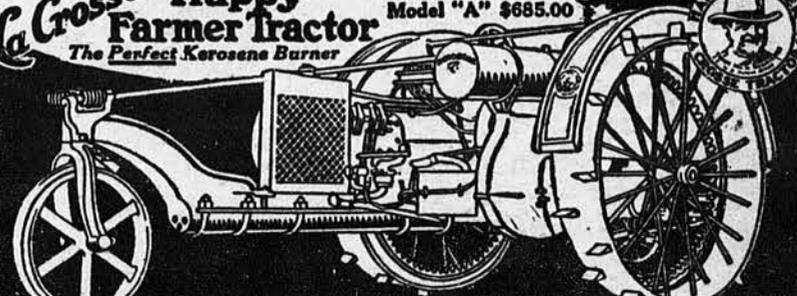
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What Shall I Do, Doctor?

BY DR. CHARLES LERRIGO.

Operations for Epilepsy.

My son, age 27, has epileptic fits. He was thrown from a horse when he was about 18 and we think his head was hurt. He began to have the fits five or six years ago and is getting worse. We have heard that these cases can be cured by operating on the head and removing the depressed bones. What do you think of it?

Some operations on the cranium following bone injuries have produced wonderful results, but it is just as true that many wonderful operations have been performed on the head without producing results at all. The one or two strikingly successful cases have received such wide advertisement as to lead to the impression that almost any one who has once suffered a head injury and afterwards developed epilepsy is a proper subject for operation. This is not true. Ninety per cent of the operations on the cranium that are performed to relieve epilepsy do no permanent good. A great many of them seem to offer great promise for six months or a year after the operation but do not maintain the improvement. There are several important considerations to govern in deciding whether to do such an operation. The most important is to decide whether any clear relation can be established between the head injury and the epilepsy. How soon did it follow? Was it a severe injury? Are there no other more prominent features of the patient's history upon which to base the origin of the attacks? What condition is shown by the X-ray plates? These are matters to be decided by consultation between the surgeon and the neurologist. Even if the surgeon decides that the chance is worth taking he can give you no assurance that the operation will be effective. It must be borne in mind that a head injury that will produce epilepsy will very likely damage the brain and leave scar tissue that is beyond renovation. This is one reason why the operations are so often unsatisfactory. Epilepsy is so distressing a condition that anything promising hope of relief is warranted, but get the advice of a sane, conservative surgeon who knows his business, and then do not expect that the operation will work a miracle.

A Nervous Trouble.

I cannot lie on my back without having a kind of numbness come over me, and I find I cannot move. I can get my breath only by hard struggles, and after perhaps 3 or 5 minutes I get the use of myself. Can there be some affection of the heart? I'm a girl of 21. What could I do to be relieved? This has bothered me since I was a child of 12.

It is rather hard for me to decide about this case at long distance, but I must say that the symptoms more resemble a nervous affection than any trouble of the heart. I am sure that you are not intentionally hysterical—as a matter of fact, hysterics is not a complaint of the patient's own volition—but I wonder if you have vigorously tried insisting that you can get up, and that nothing can hinder you. By all means have a physician examine your heart, but I must say that as a usual thing there is less work required of the heart when lying down, so if it were heart trouble that position should prove helpful rather than otherwise.

A New Nose?

The despair of my life has been a "flat-nose," and I am writing to ask what you think of the injection of paraffin. What is the danger if any and would you advise having it done by a surgeon rather than a "beauty doctor?"

The practice of "cosmetic-surgery" by the use of paraffin for building up irregularities in facial contour has been quite successful. By all means go to a surgeon. The beauty doctor may be very clever and may give good results in a fair proportion of cases. But you are allowing him to inject foreign matter beneath the skin and he may cause a serious infection in the process which a surgeon is warned against by long years of training. Most large cities have at least one doctor who makes a specialty of such work.

Study Your Diet.

I am a girl of 16. I have pimples and blackheads all over my face. They itch and hurt, and when I scratch them they sometimes bleed. Now Doctor, please tell me what to do.

Skin conditions such as you mention are often the result of an ill-judged diet and improper care of the skin. You will have to avoid candy and other sweets.

Limit the amount of bread you eat. Live on cereals, vegetables, fruit in plenty, some meat and a little bread. This diet will help in regularity of the bowels, which is a very important consideration. Cultivate a vigorous skin by taking daily baths. Always finish your bath with a dash of cold water and a vigorous rub with dry towels. Steaming the face will help soften the "blackheads" so they may be pressed out with a watchkey or a "comedo extractor." Ordinary cooking yeast may be taken internally, using one-half cake three times daily, in milk or water. If it produces diarrhea it must be reduced in amount.

Enlarged Glands.

I have a boy of 7. He caught cold, and the leader right behind his ear swelled till it was even with his ear; no sore throat; then a hard lump about the size of a marble was in front of the ear under his jaw. I thought it tonsillitis. Was it? Used coal-oil and also liniment to take down the swelling. At last painted it with iodine. When he takes cold the swelling comes back. Tell me what it is, please.

Your boy's first trouble may have been tonsillitis, but the swelling in the neck was due to inflamed and enlarged glands. External applications will do no good and may do harm. If pus forms and the gland breaks down it must be opened, but if you find the boy improving do nothing except to feed him well, have him take plenty of sleep in a well-ventilated room, and keep him warmly clothed when exposed to the weather. When tuberculosis affects the glands of the neck it is sometimes best to remove them, but enlarged glands may come from an attack of tonsillitis or other causes, and will improve as the child builds up.

Anxious Boy: I should like to run a separate column for you boys. The Lord knows you need it. But since the editor doesn't order it that way and the subject you wish discussed won't do in this column, you'll have to send me a self-addressed and stamped envelope.

G. J.: Eczema of the rectum is one of the most distressing affections conceivable. The best hope for cure lies in a careful examination to ascertain if it is due to mucous piles, fissure or fistula or any other source of local irritation. While your physician is doing this for you he also should make a thoro examination of the urine.

M. J. S.: Yes, a woman passing thru the "change of life" should have everything made as easy for her as possible. She is quite apt to be nervous and easily upset, and very readily becomes despondent. A little change of scene often does good. She should be encouraged to go about rather than to mope at home. There is every reason that she should be fully occupied, but the strain of the work should be lifted from her and as much responsibility removed as possible. Usually no medicine is needed.

F. K.: Even in a normal childbirth there is sure to be some laceration of tissues. If this involves nerve tissue it may be necessary to have a slight repair operation to relieve a tenderness and pain, even tho the muscular support is not impaired.

Fattening Stock on Pulp

The photograph shows forest range sheep being fattened on sugar beet pulp at the factory of the Great Western Sugar Company, Greeley, Colo. The sheep were 6-year-old ewes that had been pastured on the National forest ranges in Wyoming. They were brought by trainload to Greeley to be finished off for market. They were in very poor condition on arrival but at the time the photograph was taken about two weeks later had improved in appearance.

Cattle and sheep feeding on the pulp that is left after sugar is extracted from the beets has grown to be an immense industry in Colorado. Tens of thousands of cattle and several hundred thousand sheep will be prepared for market this winter on rations of beet pulp and alfalfa. The pens around the factory cover quite an acreage.

Stacks of alfalfa were located at various places accessible to the cattle and the sheep. The pulp for the sheep was

put in trenches just outside of the fence so that the animals ate thru the fence. Waste from trampling and scattering was avoided in this way. The pulp in the cattle feeding pens was placed in bunks. The pulp has been found especially good for the old ewes, the stockmen say, as their mouths can handle it better than the harder fodder. It requires about a week to accustom them to the new diet and the feeding thru the fences, but when once they get used to it they like the pulp very much.

The beet growers around Greeley and other sugar factories of Northern Colorado haul great quantities of the pulp to their farms and find it pays for short hauls. The factories contract to give the beet growers priority rights to the pulp and also the molasses.

To Apply the Phosphate

I wish to inquire about the best time to sow acid phosphate upon wheat in the spring. Experts say bonemeal or acid phosphate are valuable on our soil here. Bonemeal has been tried a number of years on wheat with good results. I could not get fertilizer last fall and writers say acid phosphate can be sown in the spring. I wish to know the best time to apply it and the best quantity an acre.

It has not been a practice in this state to use either acid phosphate or bonemeal as a spring dressing to wheat. Such applications, however, are practiced in other states and have proved to be satisfactory. As you know, we have recommended the use of these materials on certain soils in the state, and have suggested that the application be made at the time of seeding. However, many farmers could not secure phosphorus at seeding time last fall because the supply was exhausted at that time.

I believe that those soils in the eastern part of the state which have been derived from sandstone or shale and have been cropped for many years will respond quite readily to an application of 120 pounds of acid phosphate an acre this spring. This application also will no doubt give paying returns on the eroded glacial soils of the eastern part of the state. This fertilizer should be applied just before spring growth begins.

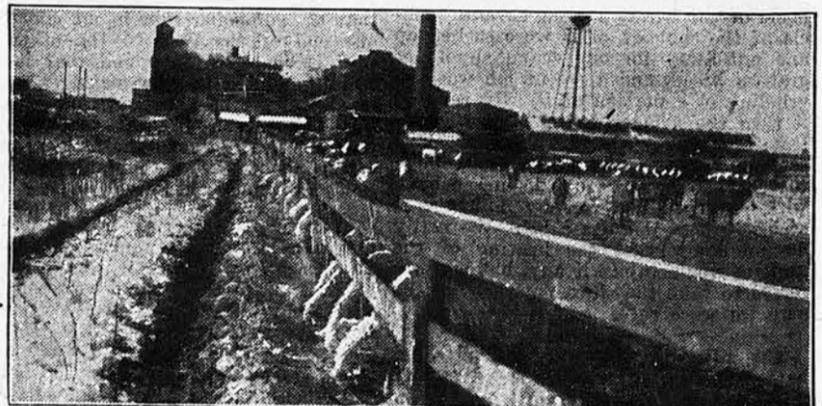
K.-S. A. C.

Shell Seed Corn by Hand

Seed corn should always be shelled by hand. Ears should first be rubbed and the kernels from tip and butt should be discarded from the seed supply. The small kernels from the tips are less productive than the other kernels on the ear; the blunt, thick, rounded kernels from the butts are just as productive as any of the rest, but because of their shape and size they do not plant uniformly when used in a corn planter with other kernels.

Shelling by hand takes more time and labor but is profitable. The mechanical corn sheller is likely to injure the germ tips of the individual grains, and to thus destroy their power to germinate. No matter how large the required supply, it will still pay to shell it painstakingly by hand because the greater the acreage to be planted, the greater the ultimate profit.

Every ear should be shelled separately into a shallow pan or box, and every blemished, misshapen, or worm-eaten kernel should be rejected. When the seed from an ear is found satisfactory and sound, and free from poor kernels, it is poured into the general supply, and another ear is shelled in the same way. It is much easier to pick out defective grains from a single layer in a small receptacle than from a large quantity in a bushel measure or a bag.



Feeding Sheep Sugar Beet Pulp at Greeley, Colo., at the Factory of the Great Western Sugar Company; Excellent Gains are Made.

TOM McNEAL'S ANSWERS

Estate of Mother.

If the mother owns real estate in her own name and deeds it to the father, can the children hold a part at her death while the father is still living? C. P.

No.

Inheritance Tax.

What is the law of Iowa concerning the inheritance tax? A dies and leaves an estate. Would the widow's share be subject to the inheritance tax? SUBSCRIBER.

No.

Homestead Filing.

Can the father, mother or wife of a soldier file on a homestead for a soldier boy? My son is in the army and can't possibly get a furlough to file on a claim himself. Are the homestead laws the same in Kansas, Colorado and Wyoming? SUBSCRIBER.

I regret to say that neither the mother, father nor wife of the soldier can file for him. The different states have nothing to do with the homestead law.

Income Tax.

Will you give your opinion on the exemption of congressmen, senators and other government officials from the income tax? Are they not United States citizens or is money paid by the United States for services not so good as other money? F. N. Narka, Kan.

The exemption of congressional and other government official salaries from the operation of the income tax was an outrage, but as I understand it the law has now been amended to include these salaries.

Question of Draft.

1. Will a man who was more than 31 years of age on last registration day be allowed to move to Canada now?
2. Would he be compelled to return and be subject to draft if the United States raised the age limit, he being still a citizen of Canada, but living on a farm there? G. A. R.

1. Yes.
2. At present the United States has no treaty by which a citizen of this country residing in Canada can be compelled to return to the United States for military service. There is talk of such an arrangement being made.

Freight Bill.

During the spring of 1915 A got an emigrant car from the Rock Island railroad from a point in Kansas to New Mexico for which he paid \$80. He did not load the car to its capacity. In December, 1917, he received a bill for \$8 charges on the car, the road saying that an error had been made in the first charge. Will A have to pay this? I had a colt altered about two months ago. In throwing the colt the men hurt his back so that he could hardly get about for a while. Do you think he will get all right? What can I do for him? C. D.

I know of no way in which the railroad can collect the extra \$8. Unless the colt's spine was injured it will no doubt get all right in time. You had better, however, have it examined by a competent veterinarian and get his advice.

Tax Deed.

A let a tract of land sell for taxes. B paid the taxes and took a tax deed. The deed having run three years B says that A had two years in which to file suit for redemption and that his time for so doing expired in 1917. A says he has a right to redeem at any time he sees fit. The deed was not issued until September, 1917. B says that he has paid five years' taxes and penalties and that A's claim is outlawed. A is a speculator living in the city somewhere. C, a third person, has charge of the selling of the land and tried to get a commission on the tax sale but failed. Now he is trying to sell the land. Has he any right to interfere? A. R.

The three-year redemption period having expired and the tax deed having been issued, A's right to redeem has expired unless he can have the tax deed set aside.

C, as agent of A, has a right to offer for sale whatever equity or possible title A may have in the land.

Who Stands the Loss?

A rented his farm to B, one-third of the grain to be delivered at the market. A did not wish his share of the corn cut up. B cut his share and left A's standing in the field. Some one came in the night and gathered about 30 bushels. B says corn was divided and that he is not responsible for the loss. A says the corn was in B's care until delivered. Who should stand the loss? SUBSCRIBER.

From your statement of the facts, the terms of the original contract were changed at A's request so that instead of delivering the corn at the market it was divided in the field. This constituted a delivery and after that B was bound only to exercise reasonable care with A's part of the crop. Reasonable care, I take it, would be to see that stock did not break into the field and

destroy the crop thru the neglect of B, who had charge of the premises. I do not believe that any court would hold under these conditions that reasonable care required B to sit up at night with a shotgun guarding A's corn. In my opinion B is not responsible for the loss. If the original contract had remained in force B undoubtedly would be responsible for the delivery in that case would not be complete until delivered at the market.

Defaulting Guardian.

A and B were husband and wife. C was the mother of B and died, leaving an estate of which B and the children were heirs. In October, 1909, B died, leaving four young children. When C's estate was settled the probate judge appointed D as guardian of the children. In 1916 one of the men who signed the bond died. Since then D has been asked to give a new bond or pay the money held by him as guardian into the probate court. Last spring he promised A that he would turn the money over by November 15 but failed to do so, and it is said that he is bankrupt. He has moved to Oklahoma. What course should be taken? Can the children collect the money with interest from the state of Kansas? J. H. N.

The fact that the bondsman died does not relieve his estate of his obligation to make good the defalcation of the guardian. The probate judge should dismiss the guardian and call on him and his bondsmen and the administrator of the dead bondsman's estate for a settlement at once.

The state of Kansas is under no obligation to make good the defalcation of the guardian.

Universal Military Training.

Do you think that universal military training will be adopted in the United States? If so, when? Where would they train the young men? Would there be any exemptions? Would a young man who stammered very badly be liable to military training? A.

As to whether universal military training will be adopted and made the permanent policy of this country will in my opinion depend largely on the result of this war. If, unfortunately, Germany should win the war, or if there should be a draw then I fear that the world will begin to prepare for the next war, which would mean that we should have to adopt a military policy. If, as I most sincerely hope, the war ends in the defeat of Germany and the overthrow of the German military power the necessity for universal military training will not exist, and I cannot believe the people of the United States will stand for it.

I do not know where the young men would be trained in event universal military training is adopted and neither do I know what regulations would be made concerning exemptions.

A Road Question.

A road follows a half section line around a quarter section, but there is another and better road around the quarter on the section line. Now there is no one living on this half section line road. It benefits no one by giving him an outlet. The owner of the half section which the road divides cannot farm or pasture his land to an advantage. He circulated a petition in the township in which the road lies and secured more signatures than were required by law and turned the petition over to the county commissioners, who have acted on the petition because there are a few stubborn sore heads fighting it merely for spite and who angle across the land and make roads all over the field when the roads are bad. Is there any way to compel the commissioners to vacate the road or get it vacated without their authority? SUBSCRIBER.

There evidently is an omission in this letter. The writer does not say what his petition contained, but I assume that it was a petition asking that the road be vacated. He also says the commissioners acted on the petition, but I think he intended to say that they did not act on it. However, I am not able to give him any encouragement in any event.

It is within the power and discretion of the county commissioners to either grant or refuse to grant the petition. The only way I can see in which subscriber can get the road vacated is to elect a new set of commissioners who will be more reasonable.

A Just Division.

Father and son go into partnership, each paying half the purchase money for a number of hogs. Father supplied pasture and alfalfa hay and the hogs were fed all the corn needed from father's crib. Some mill feed was fed to the hogs which was paid for by the son, who took all the care and management of the hogs. When the hogs are sold what would be a just division of the money received? READER.

A fair valuation should be placed on the pasture and feed given the hogs. The father should be credited with what he supplied and the son with his share. Then the son should be credited with the value of his labor in feeding and caring for the hogs. After these deductions are made the remainder of the proceeds of the sale should be divided

equally between the father and son. Let us assume by way of illustration that the value of the corn, alfalfa and pasture supplied by the father is \$200, and that the value of the mill feed and labor of the son is \$100 and the price received for the hogs is \$1,500. We would first deduct \$300, the cost of feeding and caring for the hogs, and divide the remainder, \$1,200, equally between father and son. Of the \$300 the father would receive \$200 and the son \$100. Of the total proceeds of the sale the father would receive \$800 and the son \$700.

A Mathematical Question.

A cannon that is capable of shooting a ball at the rate of 100 miles an hour is placed on an engine that is going at the rate of 100 miles an hour and fired. Would the ball leave the cannon? At what rate would the cannon ball be going when it left the cannon? Would the speed of the engine increase the speed of the ball? Is it reasonable that the ball would leave the cannon very far? E. P.

I assume that the cannon was pointed in the same direction as the engine. The force which carried the ball from the engine was entirely independent of the force which moved the engine itself but it was as if after being fired the cannon was moved forward at the same rate as the ball. If a cannon capable of shooting a ball or shell at a certain rate were placed inside of a huge mortar capable of shooting its load at the same rate of speed as the inside cannon and both were fired simultaneously, then the inside cannon would keep up with its shell or ball, for it would be propelled at the same rate of speed. If I am right about this the cannon loaded on the engine would keep up with its own ball.

If I am right in my first conclusion, then the speed of the engine would not increase the speed of the cannon ball. I might say in conclusion, however, that just now I cannot think of anything that is of less importance than this inquiry.

Renter and Subrenter.

A owns a tract of land and gives B a part of it but does not give him a deed. B is a child of A. B moves on the farm, puts on improvements such as gates and a hog fence and then rents it to C, giving a written contract. A, knowing all about the deal, said nothing to B or C to indicate that it was unsatisfactory to him. B writes C that all work was satisfactory and that he can have the place for next year on the same terms as he had it this year. Can A give C a notice to vacate and make him move off? In case C moves off can he get any damage from B?

Does the law require a teacher to make up for Thanksgiving if he does not teach on that day?

Does the law permit a man to allow his stock to run at large thru the grazing season if he does not own any grass of his own? SUBSCRIBER.

The answer to the first question depends on the nature of the contract between A and B. If A had given full possession and control of the land to B, then B had a right to rent it and A has no right to interfere. If A merely rented the land to B the latter would not have the right to rent to some other person without A's consent. If he did consent, however, that B should rent the land to C for a given period, then he has no right to interfere until the expiration of that period and he again gets full control of the land.

If B has the right to rent the land to C for the ensuing year and agrees to do so, then C is not bound to pay any attention to a notice from A, and if A should eject him he would have an action for damages, and if B consented to such ejection he also would have a right of action for damages against B.

Thanksgiving is not a legal holiday in Kansas and if the board of directors require it the teacher would be obliged to make it up if he did not teach on that day.

In counties where there is no herd law, stock is permitted to run at large. The fact that the owner of the stock does not own any grass makes no difference. If stock running at large breaks thru a lawful fence the owner of the stock is liable for damages, and the owner of the premises would have the right to hold the trespassing stock for the damage.

May Ship Rabbits.

Is it lawful to ship rabbits to the Kansas City markets? W. E. N.

Yes, and the more you ship the better.

Walnut Logs.

Will you please tell me if well seasoned walnut logs are of any value? How should I go about it to sell mine? C. S. Walnut, Kan.

There is a steady market for good walnut lumber. I am not well posted as to prices, but if you will address a letter to the Penrod Walnut and Veneer Co., Sheffield, Mo., it will give you quotations.



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FARM ANSWERS

Sorghums in Chautauqua County.

What sorghums would you advise me to plant for forage and seed? What should I plant on oats stubble? B. S. H. Chautauqua Co.

You probably will get the best results with Blackhulled white kafir for grain, Kansas orange sorghum for silage and Sudan grass for hay. The Sudan grass matures rapidly, and is adapted to growing on oats stubble if planted promptly after removing the oats.

Controlling the Garden Insects.

How can I control the ordinary garden insects? They caused much loss in 1917. Shawnee Co. D. C. O.

We cannot answer this here; it would take too much space. You can get an excellent bulletin on the subject, which has just been issued, from the United States Department of Agriculture, Washington, D. C. This is Farmers Bulletin No. 856; Control of Diseases and Insect Enemies in the Home Vegetable Garden.

Information About Castor Beans.

Can you send me a bulletin on Castor beans? California. M. A. R.

We have no bulletins dealing with Castor beans. This crop was grown to a considerable extent in Kansas about 20 years ago, but since that time the acreage has decreased greatly until we are now growing only a few hundred acres annually. I would suggest that you write to the Oklahoma Experiment station at Stillwater, Okla. Several bulletins have been published by this station which probably would give you some valuable hints. K. S. A. C. S. C. SALMON.

Cowpeas in Cloud County.

Do you think I can grow cowpeas profitably? Cloud Co. C. A. E.

It is my opinion that cowpeas would not be very profitable in your locality. We find that we cannot grow them farther west than Manhattan with any great degree of success unless sown by themselves at the proper time, and when this is done the yields are less than can be secured from other crops. Also, the price of seed is very high, which is an additional reason for not growing them this year. As a leguminous crop, it is my opinion that either alfalfa or Sweet clover would be more profitable. K. S. A. C. S. C. SALMON.

Tainting of Milk from Sweet Clover.

Can I avoid the tainting of milk when cows are on Sweet clover? Cherokee Co. D. S. H.

Milk may be tainted occasionally when cows are pasturing on Sweet clover. However, the large majority of farmers who pasture Sweet clover on an extensive scale report little or no trouble. The flavor imparted to milk at times is not disliked by all persons, as some state that it is agreeable and does not harm the market value of dairy products in the least. This trouble is experienced for the most part in the early spring. The tainting of milk may be avoided by taking the cows off the pasture 2 hours before milking and keeping them off until after milking the following morning.

Diseased Rabbits.

Will some one tell me thru the Farmers Mail and Breeze why the rabbits are so scabby this year? Are they fit to eat when they are scabby? Some persons say that the rabbit with scabs or warts has tuberculosis, and the people are afraid to eat the scabby rabbits. Jackson Co. F. W. K.

Horny growths on rabbits are not unusual and are not considered to be an evidence of disease. However, growths other than so-called horns constitute a diseased condition, and while I am not prepared to state what the nature of this disease is, because it may vary, still I do not consider such meat wholesome and fit for human consumption. DR. R. R. DYKSTRA. K. S. A. C.

To Inoculate a Field.

How can I inoculate a field for alfalfa? Cherokee Co. C. S. B.

I regret that we have no bulletins dealing with inoculation by the culture method. I may tell you, however, that the best method of inoculation is to secure soil from an old field and scatter it over the field where the legume is to be grown. This should be done immediately ahead of the harrow and, if practicable, on a cloudy day so the soil may be worked in by harrowing before it has an opportunity to dry out. As a rule, artificial inoculation with the culture media has been unsuccessful as compared with the method described. S. C. SALMON. K. S. A. C.

Barley in Greenwood County.

Can barley be grown here successfully? Greenwood Co. S. E. H.

Barley will be a satisfactory crop for your part of the state unless chinch bugs are numerous. According to such information as we have, they are not very numerous in your county, and probably there will be no serious outbreak this coming season. You can determine this for yourself, however, more accurately by examining a bunch of grass in low places and along fence corners. If chinch bugs are not numerous, you should have no fear in grow-

ing barley. It will produce better yields than any other spring small grain that you can grow.

I would recommend the common six-row varieties such as Manchuria, Odessa or Coast. The latter is often known as California feed barley. The Hulless barley is not to be recommended for your conditions as it produces very low yields. I would recommend that about 2 bushels an acre of barley be sown, and that it be put in as early in the spring as the ground can be gotten in condition. We are informed that C. A. Barker of Hoxie, Kan., has 1,500 bushels of the 1915 crop of barley for sale. You probably can secure seed from the various seed companies operating in the state. You will find a list of these at the bottom of the seed list which I am inclosing, and which I shall be glad to send to anyone on request. S. C. SALMON. K. S. A. C.

An Examination for Disease.

I have a young heifer and I am not sure whether she is entirely healthy. I should like to know where I can send a sample of her milk to have tested. Ford Co. R. Y.

It is very difficult to make a diagnosis of any disease by an examination of the milk. So long as the cow's udder is healthy, the remainder of her body may be diseased, the chances are that the milk would show no change. In some instances where the udder is diseased, the milk shows so little evidence of this that it is very difficult, or almost impossible to detect it. A bacteriological examination of the milk can be made by the bacteriology department of the Kansas State Agricultural college. A letter should accompany the milk, stating what is to be done with it. K. S. A. C. DR. R. R. DYKSTRA.

A Start With Legumes.

How can I get a start with the legumes? Douglas Co. J. A. H.

It is my opinion that the best way in your section would be to grow a crop of oats, plow immediately after harvest and disk and work down the seedbed into good condition, seeding about the middle of August. On bottom land, or particularly good land, you could seed alfalfa or clover with the oats in the spring. This particularly would be successful with Sweet clover. I would not recommend this practice on thin upland soil. Winter turf oats would be much better. If you seed your alfalfa and clover with the oats, I would recommend that the oats be sown somewhat thinner than usual, say 1 1/2 bushels an acre, and certainly not to exceed 2 bushels. K. S. A. C. S. C. SALMON.

Seed Corn in Atchison.

Is Boone county white a good variety of corn for bottom land here? Can I test corn in an incubator? Atchison Co. J. W. A.

Boone county white corn should be one of the best varieties for your bottom land. For upland, an earlier variety such as Pride of Saline, Kansas sunflower, or Reid's yellow dent would be suitable.

You can test your seed corn in an incubator if you can control the temperature. The only precaution necessary is to see that your temperature does not get too high or that your fire does not get out and allow the corn to freeze. Also, you must see that the corn has plenty of moisture at all times. This can be done best by placing the corn between moist cloth, in sand, or in sawdust. K. S. A. C. S. C. SALMON.

A Profit from Castor Beans.

Can I produce Castor beans, at a profit? Ellis Co. E. A. H.

We have no bulletins on Castor beans. We understand that the War Department is contracting for growing 100,000 acres in the Southern states. The chances are that they will produce enough to supply the demands, and since Castor beans can be grown more profitably in the Southern states than in Kansas, it seems to me that it would be better for Kansas farmers to concentrate their attention on the production of food crops. Also, I doubt if Castor beans would be particularly successful in your part of the country. They require a considerable amount of moisture to make a crop and if you should have a dry season, as quite frequently occurs, you probably would get nothing from your crop. K. S. A. C. S. C. SALMON.

Concerning the Campine Chickens.

Kindly tell me something about the Campine chickens. Norton Co. H. P.

The Campine is a breed which originated in Belgium and has found a good deal of favor there as an egg breed. It is only recently that this breed has attracted attention in the United States, but it has gained favor rapidly and at the present time is enjoying a considerable measure of popularity.

In its general characteristics the Campine is much like the Leghorn. It is a comparatively small breed, very alert and active, and of a nervous temperament. These fowls should be rather deep and long bodied and should be well rounded. The Campine female has, if anything, a longer back than the Leghorn female. Both varieties of Campines are single combed, the shape of the comb being the same as that of the Leghorn in both sexes. The standard weights are: cock, 8 pounds; hen, 4 pounds; cockerel, 5 pounds; pullet, 3 1/2 pounds.

In the Silver Campine both the male and the female have white heads and hackles. The rest of the plumage is a greenish black, each feather barred

with distinct white bars, the black bars being wider than the white by about four times. The white bars do not extend straight across the feather, but have a slight tendency to be V-shaped at the quill. The undercolor is slate throughout. The legs and toes are leaden blue and the skin white in color.

The Golden Campine is identical with the Silver Campine except that the white of the Silver Campine is replaced by golden bay.

Shearing the Sheep.

How can I shear my sheep to the best advantage? Reno Co. D. L. V.

Shearing generally is done in late spring or early summer, after lambing. It should be done on a warm day, so the ewes may not become chilled. Formerly shearing was done mostly by the use of hand shears, but in most flocks of large size power shearing machines are now used. For small flocks under 50 head hand-power machines are the most economical. The machines are more rapid, smoother work is done, and the ewes are injured less. It is easier to learn to use them, and more wool is obtained than where hand shears are used.

The tags or dung locks should be removed from the fleece, and then it should be rolled up, not too tightly, skin side out, and tied with paper twine. Wool buyers prefer this method of tying to that done with wool boxes.

If the lambing is late the ewes may be sheared before lambing, but great care must be used in handling them. It is better to do the shearing after lambing. In either case it should be done before hot weather sets in.

A Cow With a Tumor.

I have a cow with the right front teat in bad shape. When I squeeze the teat to obtain a flow of milk, the end of the teat seems to close up. By inserting a tube the milk will readily flow, there being a small lump about half way between the small end of the teat and the udder. That was the only trouble in that quarter until the fifth or sixth day, from which time the whole quarter has swollen. I have been using a milker on this cow for six weeks, but have been very careful to adjust the machine so it would not be too harsh. Please advise me what you think this trouble is, and what I had better do for it. Cowley Co. J. G.

This cow probably has a small tumor or growth in the udder, which can be removed by means of a special instrument. The work is of such a delicate character that it should be attempted by no other than a competent graduate veterinarian. From the symptoms submitted, I am a little bit afraid that the cow's udder is already infected as a result of previous manipulations. Removal of the tumor should not be attempted so long as the swelling and infection exist. In order to control this latter, I would recommend the internal administration of a tablespoonful of formalin mixed with a quart of water and given as a drench daily for a period of a week or 10 days. K. S. A. C. DR. R. R. DYKSTRA.

A Weakened Colt.

We have a colt about 9 months old that has had diarrhea practically ever since it was born.

A veterinarian prescribed castor oil every day for a week. I have tried it different times. It helped so long as I used it but when I quit the diarrhea came back. He also said perhaps it came from the mare's milk, but it made no difference when I weaned it.

A doctor prescribed: 15 grains salicylic acid and 15 grains tannic acid. Two such powders daily until diarrhea ceases. It gave some relief, but as soon as I quit this medicine, he was as bad as before. I am feeding him oats straw and corn fodder and oats for a grain. I dare not feed him cane, kafir, or alfalfa. Can you prescribe for him? Nemaha Co. W. H. H.

This colt undoubtedly is affected with some chronic derangement of the digestive organs. The chances of obtaining a recovery in a case of this kind are very poor indeed. In some instances, diarrhea is due to infection of some kind, and if you will send a sample of the intestinal discharge to the veterinary experiment station at Manhattan, together with a letter stating in detail the duration of the disease and the symptoms that you have observed, we may possibly be of assistance to you. In the meantime, you might try the internal administration of the following remedy:

- Powdered krameria 2 oz.
- Powdered Spanish whiting..... 4 oz.
- Powdered ginger root..... 2 oz.
- Powdered sweetwood 8 oz.

These ingredients are to be mixed and the animal is to receive a heaping tablespoonful in the feed twice daily. The foregoing remedy is not a cure, as it simply stops the diarrhea, the sometimes if the diarrhea is controlled long enough it gives nature an opportunity to cure the real trouble. K. S. A. C. R. R. DYKSTRA.

Blue Andalusians.

I am hearing a good deal these days about the Blue Andalusian chickens; please tell me about this breed. Wilson Co. P. O. H.

The Andalusian is supposed to be a native of Spain and has derived its name from the Province of Andalusia. Andalusians have been known in this country for a long period, but have never become very popular or very widely kept.

The Andalusian is very similar to the Leghorn in type, but is a slightly larger bird. The standard weights of the Blue Andalusian are: cock, 6 pounds; hen, 5 pounds; cockerel, 5 pounds; pullet, 4 pounds.

This is a single-comb breed, and in the male the comb is somewhat larger than in the Leghorn and the blade has a slight tendency to follow the neck.

The comb of the female is practically identical with that of the Leghorn female. The male has a general top color of dark lustrous blue, approaching black, which extends over the hackle, back, saddle, shoulders, sickle feathers, and tail coverts. The rest of the plumage is a slaty blue which shows in most sections a well-defined lacing of darker blue. In the female the general plumage color is a slaty blue of even shade, each feather having a clear, well-defined, narrow lacing of darker blue. The neck has a decidedly darker cast of plumage than the rest of the body. The undercolor of both sexes is a slaty blue throat. The legs and toes are leaden blue and the skin is white.

The behavior of the Blue Andalusian in breeding is peculiar and interesting. When both sexes in the mating are blue, the chicks hatched are never all of them blue, but approximately 50 per cent come black or white or some combination of black and white. One-half of this 50 per cent, or 25 per cent of all the chicks from the mating, are black or occasionally black showing some red, especially in the males; while the other 25 per cent of the chicks come some kind of white—in general, white splashed with black or blue. If matings are made in which one of the sexes is black and the other white, all of the chicks hatched will come some sort of blue. This latter form of mating is not used by breeders, however, for the reason that the quality of the blue produced in the chicks is not that desired. Breeders use only blue birds in their matings, selecting individuals which will give them the best color possible in the blue offspring and discarding the off-colored young birds for breeding purposes.

Sweet Clover With Wheat.

Can I seed Sweet clover with wheat? Leavenworth Co. K. Mach.

Sweet clover can be sown successfully with wheat in the spring and is quite often sown in that way. You could not get a crop of seed the same season it is sown, however. Sweet clover is what is known as a biennial, and does not produce seed until the second season after sowing. The sandy ground you mention undoubtedly would be satisfactory for your Sweet clover. I would recommend about 15 or 20 pounds of hulled seed an acre, and also would recommend early seeding. You cannot seed wheat this late in the season with any chance of success, and I would not advise spring wheat for your section of the country as it will not produce a crop oftener than once in several years.

For your ground that is weedy, I would suggest that, if possible, you get it into alfalfa for a year or two if it is suitable for this crop—Sweet clover also would be satisfactory. If suitable for oats, a good plan would be to put it in oats this spring, plow the ground shallow immediately after harvest, work this down into a good seed-bed with a disk and harrow, and seed the alfalfa or Sweet clover about the middle of August or any time during the latter half of August or first of September if you have sufficient rains to germinate it and get it started. I would not advise seeding after September 10, as it is quite likely it would not get a sufficient start to survive the winter.

K. S. A. C.

For the Young Breeders.

I am just getting started in the Shorthorn business, and I don't know just what to do to learn about blood lines. What would you suggest? Brown Co. D. C. O.

A young breeder told of this in a recent issue of the Shorthorn in America. You can get a sample copy of this excellent paper free on application to the American Shorthorn Breeders' association, 13 Dexter Park Ave., Chicago, Ill. This breeder said:

I try to keep as well informed regarding the trend of affairs in Shorthorn circles as possible. I send for private herd and sale catalogs of every leading breeder in the United States and carefully study the pedigrees, trying to memorize the different blood lines as best I can. My knowledge of pedigrees is gained in several ways: by a close study of Mr. Sanders's Shorthorn history, and I have written it full of copious notes, put in for my especial benefit; by a close study of the private and sale catalogs received, and if it will aid me to more easily remember, I pencil notes in them regarding public sale prices, notes regarding the produce of the best cows, the prices and show-yard records of the get of certain sties. One can get an idea of the demand of one breeder's consignment over that of another in a combination sale or the get of some one sire over that of another if he will take the interest to do so. No breeder should regret sending his catalogs to any new prospect or young man who probably will not buy cattle for a few years. He would be sowing the seed of enthusiasm and playing for new business as well. Third, a careful perusal of the leading livestock papers, in the articles printed, in the news of the trade and advertisements inserted by breeders will aid to keep the new breeder or enthusiast abreast of the Shorthorn times.

I follow quite closely the reports of all the leading state fairs and livestock shows and in a large album, charted or ruled after my own idea, I record therein the highest winners in all classes. This record I keep in two styles, the first one formed with all the classes written out across the top, each one heading a column, and writing in below the winners' names, their herd book numbers, and the names of their breeders, with the first prize winner on the first line under the heading. The second style is grouping the winners of every animal. If one would make these records carefully for a few years he would have a valuable fund of information at his disposal.

A clear study of the herd books being comprehended, they can be put to many uses by the young breeder. Naming all the uses, however, would occupy more than the allotted space. To me there is much more contained therein than the mere recording of names. In a letter from Richard Gibson, from whom I purchased my set of American Herd Books, he said: "I have pored over

them hour after hour, and it was more interesting than a novel." Printers' errors in the recording of pedigrees are always corrected in the succeeding volume, and I always correct in red ink all such mistakes. Better it is to have it correct at the place where search is made than to quote incorrectly.

Inasmuch as Shorthorns are still imported from England and Scotland, I find it very interesting to subscribe for and read one or two of the leading livestock publications of Great Britain, and taken in conjunction with the English Herd Books, one can keep as well informed regarding the shows, sales and prices in Great Britain as in America.

By all means, I would attend every good sale and all shows possible, and if a young man can get away from home for a fall season he will get a profitable experience on the show circuit with some exhibitor, as a herdsman, and many of the exhibitors would be glad to hire some bright, energetic young man in that capacity. I used to go on the circuit when conditions at home would permit, and I got experience there that will be very beneficial to me if I ever take out a herd.

To understand breeding fully, as regards line-breeding, in-breeding, and in-and-in-breeding, the young breeder should resort to such works as those of Professor Davenport, Professor Shaw, William Warfield and others. Comparisons of the principles learned, studied with reference to the catalogued pedigrees, will soon enable one to know the breeding of animals suiting his fancy. He will more readily recognize an outcross, those of mixed breeding, those closely bred, and the like. If he does not understand the pedigrees fully, as to the family, or the breeding conditions of the sires, send an inquiry to some breeder or some one identified with the business, who will be glad to explain.

Any young man who is interested in Shorthorn cattle and hopes to some day own a herd should not delay in informing and posting himself regarding blood lines, production performances and show yard records of the breed. It is better to know what you wish and what is best to buy, before your purchases are made than to discover mistakes after the property is yours. Choose well, handle properly, and plan your operations to produce the best and your surplus will not go begging.

Production Costs With Hogs.

What does it cost a pound to produce pork? G. L. O. Brown Co.

The best answer we have seen to this question was in a recent issue of the Berkshire World, by W. J. Carmichael, and we quote that writer herewith:

Farm methods vary so much that it is difficult, if not impossible, to reach any definite conclusions about the cost of production of pork under any and all conditions. The method of handling the swine and the ages and number of the females which are kept are among the most variable factors and are the difficult ones with which to deal. I believe that in order to make a careful study one must take the average farmer, if possible, as a unit, and if that does not seem feasible, some other unit should be chosen. I have used the farmer producing about one carload of hogs annually, because such is a convenient unit for marketing and is, I believe, in proportion to the possibilities of the average farm and farmer.

During 1916, supervised farm accounts were kept on several Illinois farms where swine were raised to the extent of producing about a carload of swine in the 12 months. A study of 29 of these farm records shows that the average increase in weight of pork a sow was 1,218 pounds, or about 5.4 pigs a sow—the hogs having been marketed at an average weight of 225 pounds. A distribution of the approximate costs on these farms follows:

- 1.0 per cent horse labor.
- 1.0 per cent equipment expense.
- 2.5 per cent overhead charges.
- 3.8 per cent interest.
- 2.5 per cent man labor.
- 5.1 per cent rent.
- 83.0 per cent feed and medicine.

100.0 per cent.

On these farms corn supplied the big bulk of the feed. In nearly every case it was supplemented with some purchased feed as well as some home-grown small grain or pasture. The consumption of corn was at the rate of 6.6 bushels for 100 pounds of pork produced. By converting the pasture into the corn equivalent at the rate of 50 bushels of corn an acre pastured, which is none too high on the farms in question, and allowing for a corn equivalent for the supplementary feeds, it seems that the food consumption was at the rate of 8.2 bushels of corn for every 100 pounds of pork sent to market or increase in swine flesh on the farm during the year. To this must be added the cost of other items of expense, such as labor, interest and overhead. Assuming that these are approximately 17 per cent of the total cost of production, we find that the corn equivalent for every 100 pounds of increase in pork on these farms was about 10 bushels. This does not make any allowance for (a) decrease in value a pound for the sows and boar; (b) risk from disease outbreak—no cholera was found in or near any of these herds during the year; and (c) profit for the farmer. It also must be borne in mind that these men were above the average in managerial ability and had more consistent and perhaps more careful supervision than is possible or practicable to apply to all farms.

Success With the Pears.

Please tell me about growing pears. Johnson Co. O. F. K.

This question was answered quite well in a recent issue of the Ohio Farmer, and we quote that writer herewith:

Pears thrive in about all conditions where apples do well, for they are related closely in their habits of growth. Both grow better in a well drained, loamy soil that can be easily cultivated. Plan to grow cultivated inter-crops in the pear orchard, and apply fertilizer about as for corn. Buy the trees from a nurseryman who sells direct to the planter. I can only mention the varieties.

I have grown and find very satisfactory a succession of high quality pears from late summer until early winter. The earliest pear I have which ripens the last of August, is the Wilder. It is a small pear, of very good quality, but one tree is enough for the family as the later pears are larger and better. Next comes Clapp's Favorite. It is large, handsome, juicy and good for an early pear, but has not the pronounced aroma of the Bartlett, which closely follows it. Probably it is the best early pear, especially for market. It should be picked

a little green as should other pears, or when it begins to color slightly, and used when it is ripe, as it then decays quickly.

The Bartlett is the best September pear. Its peculiar rich flavor places it in a class by itself, and it is unfortunate that the tree blights so easily. One must fight for Bartletts, but it is worth while. The Bartletts can be kept until near the time for the Seckel to ripen. This is the best October pear, and most persons think the best of all pears. Its reputation is well established. Besides the luscious taste of the fruit the tree has qualities that should be well considered. It is a beautiful tree, more so than any other pear. It seldom blights. It lives longer than most pear trees and with good care can be depended on for a life time.

I think all who have it will concede that the best late fall and early winter pear is the Anjou. It makes a strong long-lived tree, and the wood has been more blossom blight than on my other trees. The Anjou should be included in the selection. The Flemish Beauty, altho it cracks badly and the tree is not usually long lived, I would want in the family orchard for there is no better pear for quality. It ripens just before the Anjou. If the Winter Nellis is added to the list, one will have about all that can be desired, but he will make no mistake if the Bosc and Lawrence are added to the list.

I lose only an occasional tree now from the blight, since I have learned more about its control. The bacteria which cause blight usually winter in bunches on the trunks of the trees, called "hold-overs." These should be destroyed in the fall. Those which live thru the winter enter the tree in the spring thru some crevice in the bark. If the bark could be kept perfectly whole or intact, the bacteria could not enter, but this is hardly possible. When it has entered, the more tender the wood the greater the injury. For this reason varieties with tender wood, like the Bartlett, blight worse than the Seckel with closer grained, tougher wood. Forcing the growth of trees makes tender wood, and induces blight. Cutting off the blighted twigs on first appearance, and destroying the "hold-overs," planting more of varieties less susceptible to blight, and not over-forging any of the trees, will generally keep down the blight injury to a minimum, and it would seem that there are still good reasons for planting pears.

I do not lose the use of the ground when starting a pear orchard. My pear orchard of standards and dwarfs is used part of the time for a run for my large flock of hens, and the orchard is cultivated frequently. When growing the trees to a bearing age I grew strawberries and cabbage for inter-crops, and kept the ground all the time under cultivation.

Producing the White Sweet Clover.

Please tell me something about White sweet clover. F. O. C. Grant Co.

White sweet clover is ordinarily referred to as mellilotus or mellilot in the South and merely as Sweet clover in other portions of the country. When soil conditions are favorable for germination, Sweet clover seedlings will appear from one to two weeks after seeding. On account of the biennial nature of the plants, they do not seem to make much growth above ground the first month after germination, but during this time they are developing root systems rapidly and thus becoming established, to be able to withstand adverse conditions. Plants which have made no more than 2 inches of top growth very often have produced roots 6 inches or more in length. The taproot continues to develop rapidly thruout the growing season the first year, and by autumn often reaches a length of 24 to 36 inches and a diameter of 3/4 to 1 inch at the crown.

After the root system becomes established the plants produce an upright, branching, leafy growth, which under ideal growing conditions may reach a height of 48 inches the first season, but more frequently 18 to 30 inches. A large quantity of reserve food is stored in the taproot the first season; this reserve food enables the plants to make a rapid and vigorous growth early the following spring.

Toward the end of the growing season of the first year a number of buds, which serve to produce the second year's growth, are formed on the crowns of the plants. After these buds are formed the plants may be clipped quite close to the ground, as the buds are not developed until the plants have made sufficient growth to live thru the winter.

During the second season, Sweet clover makes a rapid, erect, stemmy, branching growth from 5 to 10 feet high, the plants producing only a moderate number of leaves, which drop as the seed matures. A large number of loose racemes bearing white flowers are produced during the flowering period, which usually lasts from three to five weeks.

Before Sweet clover has made a growth of 12 to 18 inches it closely resembles alfalfa. The plants may be distinguished from alfalfa by the absence of pubescence on the under side of the leaves and by their bitter taste. When they are in bloom they may be identified easily by their long, loose racemes of white flowers and their open, coarse growth. Unlike alfalfa, the seeds ordinarily are found singly in the pods. Two seeds occasionally may be found, and very rarely three, in a single pod.

A number of different strains of White sweet clover are to be found in the average field, but most of them are not so marked or so conspicuous as the different strains of Red clover. The principal differences between the strains of Sweet clover are in leafiness, habit of growth, and date of blooming.

More Sorghum for Silage

Growers are reporting a considerable demand in Eastern Kansas for Kansas Orange sorghum seed. This crop has produced larger yields of silage as an average for several years' work than either kafir or corn.

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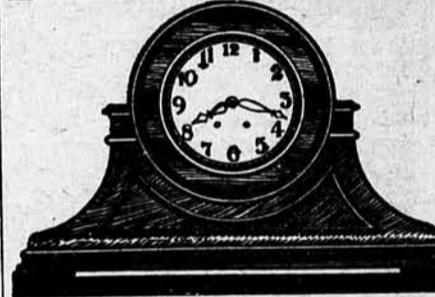
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Grange Notes
BY EVE GASCHÉ

From an address by L. J. Taber, master of the Ohio State Grange, to members of the Kansas Granges.

For generations the German rulers have attempted to anchor the civilization of the empire to the God of Force. The present emperor has attempted to use a Krupp gun as the mainstay of the future destiny of his misguided yet efficient subjects. The student of human history can but realize that there is a controlling destiny in all the activities of men. The world's future historians will record in the downfall of the military autocracy of Germany one more example of the failure of the belief that might makes right.

That individual is indeed blind who fails to recognize that civilization is now passing thru the greatest test since the beginning of history. Pessimistic souls feel that Christianity may emerge from the conflict shaken to its very foundations. It would be folly to overlook the danger of the present and the future, yet we must have faith in the fundamental institutions created by the Divine hand. We must search for an anchor which will hold the civilization of the present and make it possible to rebuild it purified in the future.

As we look for this sustaining power it is not necessary to consult the oracles of the past. It is not essential to train the telescope of science on the achievements of the past or present. It is only necessary to use the calm old-fashioned faith of our fathers and turn over history's pages and watch the human race ascend from barbarism to civilization. Only those who are so blind that they will not see or those who have lost hope and faith but will instantly recognize that it is the religion of Jesus Christ and the institution ordained by him that will again give us a world in the future that is an improvement on the present or past.

In times like these, when we see the old order changing and new and untried conditions before us; when passion and hate have such a large place in the world's activity; when sorrow and suffering seem so nearly everywhere, there is danger that men will lose their bearings and civilization suffer.

In the storm and stress of the present, in the elimination of non-essentials and the conservation of time and effort we must be careful that we touch not the fundamentals of life. We must not fail to remember that there are institutions that are vital or all that is worth while will perish.

Religion, education and morality are the sheet anchors of civilization. In the materialistic age of the present we dare not for one moment lose sight of the fact that unless we keep the church, the fountain source of religion and morality, fully vitalized and alert, irreparable will be the damage to the future.

Education is still the handmaiden of progress and after the shock of war is past and the glad refrain, "Peace on earth, good will toward men," has again touched the heart throbs of the world, educated men and women, with faith in God and a calm, unflinching belief in His justice, must rebuild a scattered civilization.

We cannot afford to allow the need of labor or the shortage of funds to interfere with our country's educational development. It may be necessary to shorten the term or change somewhat the prescribed course of study in the rural sections, in order that our country boys and girls may render necessary service in food production. But we are mortgaging the future if we allow anything, even in this crisis, to interfere with the efficiency or the attendance at our common schools, or high schools and our colleges.

As individuals we find ourselves at the most fortunate period in human history. When we remember that this is the period of the greatest destruction of property, the greatest destruction of life, the most suffering and sorrow that humanity has ever known, that statement will sound paradoxical. To the selfish, craven soul this is a miserable hour for existence, but to those with faith and hope, to those who believe that the highest aim in life should be the doing of good to their fellow man, the present is indeed a blessed opportunity.

The beckoning hand of Christianity

never called for such contributions of the best in men and women, nor has the opportunity to spend and be spent in relieving the distress of our brothers and sisters been equal to the present. Instead of seeing only the sad picture of the suffering, let us see in that suffering a call for us to rise to the heights of divine love and make of our lives such a service to others that our living will assist the race.

Growing the Sweet Corn

Sweet corn always should be found in the home garden when space allows, since it loses quality very rapidly after being picked. Its sugar changes into starch, so that to have it at its best it should be on the fire within 15 minutes after being pulled from the stalk. It does best in a fertile soil, but is able to adapt itself to all textures from sand to clay. To grow it in sufficient quantities for the average family requires more space, however, than for most garden vegetables. It should not be planted until after danger of frost is past.

The rows should be spaced not closer than 3 feet apart, and for the larger-growing late varieties the distance had best be 3 1/2 feet. Stalks should be thinned to stand from 15 to 18 inches in the row. In planting, the seed is cov-

Criticism Doing Good

The appointment of a "surveyor-general" of all army purchases by Secretary Baker is exactly in line with the Senate committee war organization bills and is a move in the right direction. The broad-sides of criticism in the last 10 days of the war administration are having effect.

"The administration has been hostile to the project of creating a Minister of Munitions," remarks the New York Evening Post, discussing the row between the Senate Committee on Military Affairs and the President. "Yet it comes pretty near getting such an official in the appointment by Secretary Baker of a skilled man, Mr. Stettinius, as a sort of surveyor-general of all army purchases, including munitions. It is one more example of giving an appointee another name and looking to him to do the work of an official whose designation by special bill is opposed."

But it is still a question whether what Congress and the country have been driving at is accomplished in this case, since it is not yet known whether Mr. Stettinius has power to overrule the Assistant-Chief of Staff who has to do with purchases.

ered with 1 or 2 inches of soil. Cultivation must be thoro, frequent, and shallow.

It is possible to use the ground occupied by early corn for a fall planting of such crops as spinach, turnips and kale. Large, late varieties, however, will occupy the ground for practically the whole season.

For early use the yellow sweet corns have become quite popular. Of these the Golden Bantam is a well-known variety. Early Minnesota has long been a favorite. White Mexican is a valuable early corn. Early Malakof is a very early sort of excellent quality. Early Adams is a variety grown frequently for market, but its virtues are rather those of the market than of the table. It is a flint corn, not a sweet corn, but if used during the very short period when its qualities are at their best, its flavor is good. For midseason and late use, Crosby, Potter's Excelsior, Country Gentleman, Black Mexican, and Stowel's Evergreen are suitable.

It is possible to have a fairly long season of usable corn if three varieties, such as Golden Bantam, Crosby, and Country Gentleman are planted simultaneously in early spring. To make the season continuous until frost, however, it will be necessary to plant some variety at intervals of two or three weeks up to the last of July. Crosby is a very good variety for this purpose.

No other domestic animal will reproduce itself so quickly and in so great numbers as the hog.

About the Kafirs

Please inform me as to the adaptability of Blackhull white kafir in this part of the state. We have been having very little satisfaction with the kafir getting ripe. Allen County. W. M.

Blackhull kafir is the best variety for growing on medium to fertile soils in Eastern Kansas. Under favorable conditions it usually will outyield all other grain sorghums. On very poor soils, however, or under adverse conditions Blackhull kafir often fails to mature and therefore is not a reliable grain producer.

Pink kafir, a variety which ripens a week to 10 days earlier than the Blackhull, usually outyields the latter variety on poor soils or in poor seasons. This variety appears to be more hardy than the Blackhull and on the average will prove a more profitable crop where difficulty is had in getting the latter variety to mature.

The failure of kafir to mature in Southeastern Kansas during the last few years has been due in part to unfavorable seasonal conditions. Cool, wet springs followed by drouth during midsummer retarded the growth of kafir to such an extent that it failed to ripen ahead of frost, especially on the poorer soils. Kafir, however, on good land properly cultivated ripened despite the unfavorable seasons, due largely to more favorable growing conditions.

Where kafir can make a normal growth thruout the season, it will ripen in 100 to 110 days and no difficulty is had in getting it to mature. There is no retarding of the growth if moisture and plant food are available in sufficient quantities at all times. This accounts for kafir maturing properly on good soils where it fails to ripen on poor soils. Good preparation of the seed-bed and proper cultivation which tends to conserve moisture and develop plant food will do a great deal to hasten the maturity of kafir, while poor cultural methods may retard it.

Where the fertility of the soil has been maintained and good cultural methods are employed, no difficulty should be had in getting Blackhull kafir to mature except in very unfavorable seasons. K. S. A. C. C. C. Cunningham.

Success in Growing Melons

The climate of Kansas is adapted to successful melon culture and wherever the soil is suitable the fruit may be grown either for home use or for the market. Melons grow best on a sandy loam or light soil which contains sufficient humus, is reasonably free from weeds, and well drained. If the soil is too rich in nitrogen, the melons are likely to be soft and rather tasteless, and will not keep or ship well.

The best results are obtained where melons are planted in soil that was plowed deeply the preceding fall and pulverized thoroly in the spring before the seed is planted. Heavier soils that tend to pack may require shallow plowing in the spring before planting. The lighter soils, however, may be worked down sufficiently by disking and harrowing.

Deep plowing in the spring is injurious since the natural tendency of the melon plant is to produce a shallow root system. To attempt to induce the roots to penetrate too deeply into the ground causes a rank growth of vines but usually checks fruit development.

The seed should not be planted until all danger from freezing and low temperature is past. The seeds are planted in hills from 9 to 12 feet apart for water-melons and 6 to 8 feet apart for cantaloupes, depending on the fertility of the soil and the nature of the vines.

From six to 10 seeds should be planted about 1 inch deep in a hill and the soil well packed over them. If the danger of injury from cut worms is great, a larger number of seeds should be planted. After the plants are well started, they should be thinned to two or three strong plants to the hill.

Thoro cultivation is necessary and the success attained will depend largely upon the care the plants are given. Weeds must be kept out and the soil should be loose around the growing plants.

To Help Your Local Fair

The United States Department of Agriculture, Washington, D. C., has just issued Farmers Bulletin No. 870 on The Community Fair. It can be obtained free on application, and it supplies information of importance to every person interested in better local fairs in Kansas.

Aren't You a Sheep Patriot?

Increased Wool Production Helps Uncle Sam

BY D. A. SPENCER

IN THESE TIMES of uncertainty and danger on every hand efficiency and thrift are of utmost importance. Farmers and stockmen, now, more than ever before, must realize that genuine efficiency is needed in their business. One of the best ways in which the farmer can show true patriotism is to make efficient use of all that comes into his possession. We are all confronted now-a-days with the serious problems of saving foods and feeds, but saving must extend to all branches of industry.

Nearly every Kansas farmer I meet says, "Kansas needs more sheep." The big problem is to increase the sheep population, and how to do it. According to recent official estimates of the needs of wool in the United States we would have to increase our sheep population 200 per cent if we were to produce all the wool now used for manufacture in this country. The report of the United States Department of Agriculture for January 1, 1917, shows that there is an average of only 16 sheep to the square mile for the entire country. By figures taken from the same source let us consider the number of sheep to the square mile in Kansas and some of the neighboring states. Missouri has 20 sheep to the square mile, Iowa 22, Nebraska 5, Kansas 4, Oklahoma 1 1/2, Arkansas 2 1/3, Tennessee 15, Kentucky 28, and Illinois 16. It is evident that Kansas and all her neighbors need more sheep. How then may we increase the number of sheep in Kansas? It is our custom to ship in many breeding ewes from the Western range, but as nearly all parts of the great Mississippi and Ohio valleys need more sheep there is a decided limit to our possibilities for shipping in from the Western range. Colorado has only 19 sheep to the square mile, Wyoming 45, Idaho 38, and Montana 25. The conclusion we draw from these facts is that we must increase our sheep breeding operations right here in Kansas. A large percentage of the best of our ewe lambs must be saved from the shambles.

No Fancy House Needed.

An expensive shelter is not necessary for the best results with sheep. A shed or barn placed on well drained land opening to the south, thus admitting plenty of sunlight, and so arranged as to be freely ventilated, yet constructed in such a way as to prevent direct drafts, if it has a good roof will serve as sufficient protection during a Kansas winter. About 10 or 12 square feet of floor space to the ewe will give enough shed room. Pregnant ewes should be in just medium flesh and for them to maintain health and vigor they must exercise.

Lambing time is the shepherd's busiest season. This time will soon be upon us, and the lambs we save will in large measure determine our efficiency in mutton production this year. The sheep owner cannot afford to winter high priced ewes on high priced feeds and then at lambing time neglect the ewes and let them lose part of their lambs. With the best of management an occasional lamb will be lost, but when lambing ewes have the proper attention at the right time a large percentage of lambs can be saved that otherwise would be lost. A man's adaptability to the work of sheep production will be revealed when the lambs come. Extreme watchfulness and

skillful care of the ewe and lamb at the time of birth is imperative. The lambs are coming rapidly the ewes must be watched day and night in order to avoid any unnecessary losses. Occasionally an ewe will have difficulty in giving birth to her lamb but it is unwise to give her help until she has tried for some time and appears to be unable to effect a delivery. When help is given be careful not to excite her more than is necessary. The essentials of aid are to see that the young, unborn lamb is in a normal position, with legs in such shape as not to hinder the progress of birth. When it is possible to draw on the lamb do so as gently as possible and pull only at the time the ewe strains. As soon as the birth is about complete and



it is possible for the lamb to breathe, remove the birth sack from the mouth and nostrils and blow into these parts to assist the new born in getting its first breath. As soon as the danger of smothering is past leave the pen and let the ewe clear and care for her lamb for a few minutes. If the lamb does not succeed in finding the teat within 20 or 30 minutes give it some help by placing the mouth of the youngster to the teat of the mother. If it seems weak and indisposed to suck place the teat in its mouth and squeeze some milk into it. The shepherd should be very careful to see that there is no excess wool about the udder of the ewe; if there is, these locks should be clipped away. This will prevent the trouble of the lamb's having difficulty in finding the teat, and the sucking of the wool locks which often causes wool balls in the stomach of the lamb, and which usually results in a stunted or dead lamb.

How to Fool the Ewe.

It is a good practice to place ewes by themselves with their lambs for three or four days so that they will know each other and be able to get together when placed with the flock. It will be wise at times to place a twin lamb that is not getting enough milk from its mother on a ewe that has lost her lamb. In order to do this it will sometimes be necessary to tie the skin of the dead lamb on the body of the lamb to be transferred. Ewes know their lambs largely by scent, and when she smells the skin of her own lamb she is likely to accept the foster lamb. Another way to coax a ewe to own a lamb is to rub some of her milk over the body of the lamb. When these methods have failed, I have sometimes found it possible to get results by smearing tar over the muzzle of the ewe and the tail and head of the lamb, or by keeping the ewe tied up for a day or two so that she could not injure the lamb.

If the weather is cold and the lambs become chilled at the time of birth it may be necessary to take them in by the fire. If this is not convenient a jug of hot water placed in a covered box will give very satisfactory results. The chilled lambs also should be given a little warm milk to supply the internal heat.

When attempting to raise a lamb by hand be careful not to over feed during the first two or three days. Feed about two or three tablespoonfuls of cow's milk every 2 hours by the use of a bottle and rubber nipple. The milk should be warmed to about 92 degrees

Fahrenheit. Be sure to keep the bottle and nipple clean, for it may prevent the lamb from having digestive troubles. When the lamb is a week or 10 days old it can be fed every 3 hours from morning to evening.

After the ewes have lambed it is not necessary to feed some grain, but be careful not to feed too much at first. One-half pound to the ewe a day to start with and a gradual increase during the first three weeks, to 1 pound or a trifle more, is usually better than to feed a larger amount of grain. When the lamb is 3 or 4 weeks old the ewe can be taking 1 1/2 pounds of grain a day. A very desirable grain mixture is equal parts corn, oats and bran. If oats are not available a mixture of 60 per cent corn, 30 per cent bran and 10 per cent linseed oilmeal will give very satisfactory results.

When the lambs are 2 weeks old they will begin to nibble at the feed. It is economy to provide them with a creep and feed them grain and hay so that they can eat what they want by themselves. Lambs will not gorge themselves and if fed all the good grain and clover hay they will eat, good mutton lambs can be ready for the market by weaning time, weighing from 60 to 75 pounds. March lambs can therefore be sold in June or July and thus avoid holding them over thru the hot weather.

However attractive the market may be for mutton lambs every loyal sheepman of Kansas should keep in mind the fact that we must have more sheep and that good ewes will continue to be in great demand. For his own profit and future welfare of the country he should retain his good ewe lambs for breeding.

There never has been a brighter outlook for continued success in the sheep business. But we must remember that no matter how wonderful the opportunities may be we still depend on sane management in breeding and feeding.

Build Rural High Schools

A new advance in educational work is embodied in the community high school. The graded system which permits only the first eight grades to be taught in the country district, then compelling the child of 12 to 14 years of age to leave the parental roof and go to town for the next four grades, has forced parents who wish to keep an eye on their children when they most need it, to band together and bring the high school grades near enough home so that the children may board at home.

This is a wise step. You will find in the city high school far more insubordination and other evils than in the average country school. Then again the country child is modest and bashful, and will not advance so rapidly among the city children. Neither will the farm boys and girls feel the need of as fine clothes when they have their own high school in the country.

I have gone thru one effort to establish a school of this kind and know of some of the objections. First comes higher taxes. Yes, but you get your money's worth. "Our territory was made up largely of renters," complains another. "All signed up. Then word came from the landowners: 'Take off your names from the list or prepare to move March 1.'" The names came off, for money talked.

"We do not want to give up our school house." Certain officers and local dictators have a feeling that they are "it," with their own little school, but if a consolidated school is put in they merely will belong to the common herd.

Then there is the school patron whose children are walking as far as 2 miles to the little one-room school, but when a rural high school is put in he demands that his children be hauled even if they live only 80 rods from the new building, just because some other patron's children are hauled, no matter how far away they live.

Outside of increased taxation, which may not begin to pay for extra board and clothing of children sent to the city, there is no good reason why any four districts should not unite and have the community high school. The good things it will bring to the community far exceed the cost. When the people are reasonable in their demands it can be made the best thing except the church, that ever came to a rural community.

D. J. Wood.

Jefferson Co., Nebraska.

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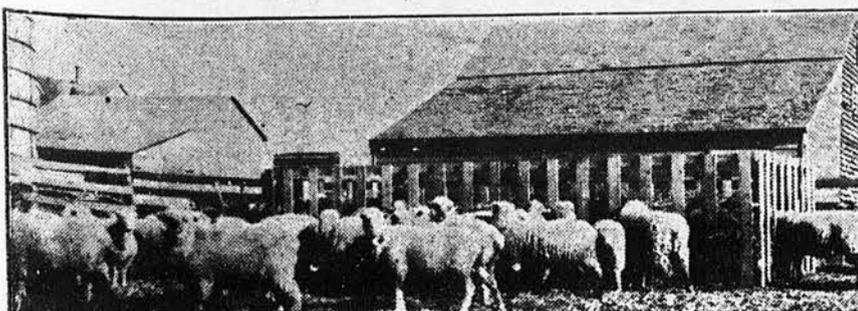
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A MAN'S COURAGE

BY RORACE BOURKE

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WHEN MARIE LOUISE came into this world her mother went out of it, so until she was ten she dwelt at various army posts with her father, Captain Dan Denton. Then he was killed in the Philippines, and she was packed off, with a hundred and one tokens of affection from the officers, to a stiff, stately house on a stiff, stately avenue in New York, wherein lived the dearest, gruffest grandfather in the world, and a grandmother who was not so gruff, but every bit as dear.

The grandfather was a retired rear-admiral. Faithfully and long had he guarded his country from hostile invasion; but Marie Louise, black-haired, black-eyed, and dainty, tripped into his life and captured his heart without a blow.

When one's ancestors have all been soldiers it is only natural that one should be somewhat keen on courage. Marie Louise was as brave as D'Artagnan. Also she was wondrous pretty, which was a gift of God. Because of her beauty and her wit, and that little something which men call charm, she was wooed individually and collectively and steadily by every youth in her set. But each lengthening of her frocks found her heart yet free, and at twenty, tho perhaps a bit bored by her many disillusioning affairs, she still was waiting for her Prince Charming to stalk up and claim her.

And then she met Sheridan. It was at a summer-resort town on Lake Superior, where they had gone to escape the rear-admiral's yearly hay-fever. "Dear me," she said to her grandmother, on their second evening. "I don't believe there's a man in this whole world who can talk anything but sports or business or theaters! The day of gallants is past, I'm afraid." She turned to her grandfather. "There aren't any more men like you and father, are there, granddad? I wish we had lived in the time of Coeur de Lion!"

The old man smiled. "I met a young chap this morning," he said. "Think he'll interest you, too. He's seen a deal of the world. I'll bring him round, if you wish."

So Sheridan was introduced, and Marie Louise liked him on the instant. He didn't boast of his prowess at polo or football, he didn't quote Ibsen, and he didn't embarrass her with fusillades of compliments; but one felt that he could ride and shoot and sail, and that he was familiar with worth-while books and plays, and that he realized and appreciated Marie Louise's charms. And they became friends.

He found her one evening on their cottage veranda, day-dreaming, with Conan Doyle's "White Company" in her lap. He sank to the steps at her feet. "Aha, afieid with Chandos and Det Guesclin!" he said. "They were great old warriors, weren't they?"

He was settling himself with his back partly toward her. She noticed his great length, lean and wiry; the top of his brown neck above his collar; the shock of blond hair; the strong profile, high forehead, straight, rather long nose, good jaw, and positive chin, which would have made his countenance stern-looking but for the thin-lipped, humorous mouth. And she thought with a little quickening of her heart that this man would compare well with any of her champions.

He looked up, and she closed the book. "Yes," she said, "they were real heroes!" She leaned back in her chair. "Things are so prosaic, so matter-of-fact, in this age, that it's a relief to go back to the men who did great deeds without a golden reward for inspiration. I know them all, these brave men of history, and I love them all, too. They're my friends!"

He was grinning. "And who are some of the favorite figures in this Walhalla of yours?"

She thought for a moment. "Oh, the Greeks and Romans that one read of in high school, and Charles Martel, and the old blind King of Bohemia who died at Crecy with his knights about him, and Warwick—why, I could go on forever! But I hate being laughed at."

Sheridan denied the charge stoutly. "And, of course, Washington and all the succeeding heroes of your own country?" he suggested.

"Of course, and my granddaddy and my father." She stopped. "You are laughing again. Haven't you any admiration for personal heroism?"

"Indeed, yes, I'm quite fond of it in the abstract," he bantered. "I love to watch it in others, or read of it. Nothing like it, in fact!"

She ignored his flippancy. "Don't you sometimes long to do daring, resolute things—to bet your life against a venture?"

"Well, I'd hardly commit myself that far," he confessed. "This life is too pleasant and satisfying and altogether desirable to take any chances with. If you don't mind, I'll continue my own sweet existence like the butterfly or the song-bird, greeting each day with music, and trying my little best to make people happier by my presence." He tapped his chest. "In me you see a convinced pacifist!"

Marie Louise allowed him a withering stare.

"For a clever man, you are most essentially stupid at times," she said. "No, I'm not," he retorted quickly. "But I like you too well to pretend an interest in your romantic creed. Courage isn't a rare flower. Most men possess it to a certain extent. But there's not much occasion to display it, nowadays, except in sticking to one's business in life thru all the bumps and jolts. Real heroics have been usurped by the movie directors."

Then they argued delightfully and at great length; but just as he was leaving, Marie Louise leaned down from the porch rail with a soft light in her eyes.

"You'd like to be a frightful scoffer, big man, but you're not convincing. I fancy you'd so forget yourself as to do brave things, if you had the chance. You would now, wouldn't you? Fess up!"

Sheridan laughed nervously and dropped his hat. "Good night," he gulped.

II
They were returning from a dance at one of the hotels. The night was fine, and Marie Louise proposed a walk home by the roundabout shore drive.

Men are stronger than girls, of course. They can run faster, ride harder, and work longer without showing signs of distress. Hence it will ever remain an insoluble mystery that a dance which invariably fits a man for hours upon hours of sleep will, in nine cases out of ten, leave a girl as fresh as when the first strain of music sounded.

Sheridan was frankly tired. He walked on without speaking, but now and then he stole a glance at the little beauty beside him—perhaps to flag his drooping spirits.

"And wasn't Helen Arthur's frock too perfectly darling?" Marie Louise chattered.

She didn't expect an answer, but was compelled to relieve herself of this weighty subject.

"Er—yes," he answered absently, and added, to himself: "My feet are dead tired. Great Scott, her eyes are larger than ever!"

"But didn't you think that that Burton girl's hair was a fright? That style is entirely out of date."

No reply from Sheridan, but he said to himself:

"I'll be stiff as a board tomorrow. Gee, I could hide both those hands in one of mine!"

Presently they came to a lonely stretch just before the road swerved away from the lakeside. A thick growth of trees and bushes ran along one side; on the other, many feet down the sheer face of the cliff, boomed the black waters of the lake. The girl shivered a little and drew nearer to Sheridan.

"I'm glad the moon's so bright," she said. "This place is mighty spooky!" "Little heroine!" he murmured with a smile.

Straightway she crossed the road and marched along, with head up, close to the dark branches.

"It is spooky," he said, following her, and in his voice there lurked a note of tenderness scarcely appropriate to the commonplace remark.

She instinctively recognized the new tone, and cast a half-timid, half-eager glance at her sobered companion, who was plodding along with compressed lips and hands clenched in his pockets.

"I do believe he'd hug me if he dared!" she thought, and blushed at the wickedness of the fancy.

Twice Sheridan started to speak, and twice broke off with a cough or a sputter. Finally, mastering his embarrassment, he began:

"I haven't known you very long—as time goes—have I?"

At once her pulse began beating telegraphic danger-signals.

"I'm going to be proposed to!" was the galloping message. "I'm going to

be proposed to, right on this very spot!" She stopped, facing him in sudden panic. "In your mind, no doubt," he went on, speaking with evident difficulty; "it is merely a passing acquaintance; a summer's friendship that dies as the summer dies. But with me it's different. I feel that I've been waiting for you. When I met you, your thoughts, your instincts, your likes and dislikes were all so congenial to mine that I sort of accepted you as a part of my life—like a twenty-first birthday or an incipient mustache."

He was toying with a white glove. "You see, I've known you for a long time—ages before we were introduced—just like the twenty-first birthday or the mustache. I seemed to be aware that when the time came you just must happen along. But you are more wonderful than the birthday or the mustache!"

He raised his eyes, and she read in them what she had suspected for some time—what he was trying to tell her haltingly in words.

"You are the most wonderful being I have ever encountered," he went on. "I know what your ideals are, and I know I fall pitifully short of them. But all that I have, all that I am, all that I ever hope to be, I lay at your feet; for I love you!"

She was looking up at him with her hands on her breast. He covered one of them with both of his, more in a grasp of good faith than an embrace.

"I love you very dearly, Marie Louise!" Marie Louise sighed. A strange dizziness seized her. Her heart raced and pounded till she thought he must hear it. Her eyes were blinded with ecstatic tears.

"Oh!" she whispered, placing her free hand on his arm. "Oh, please, please wait! I—I can't speak."

Her head was bowed, and he bent down till he could feel her hair in his face. "Marie Louise—darling!" he breathed.

III
Two men stepped thru the trees into the road. They were a rough-looking pair. Both wore masks. Both had guns. They looked as if they needed their masks and knew how to use their guns. One of them addressed the lovers.

"Stick up your hands!" It was grotesque, unreal, like telling a ghost-story at high noon. But the man dispelled any illusion of unreality by an admonitory wave of his gun.

"Stick 'em up quick," he ordered, "er I'll croak yuh!" Sheridan was too drunk with happiness to understand, all in a moment, whether this was grim jest or grim reality. He reviewed in a flash the possibilities of resistance.

He noticed the distance between the robbers and himself. He entertained, and immediately dismissed, the idea of springing upon the nearest. He considered an attempt to wrest the gun from the one that approached to search him, and to beat the other one to the first shot. And in the end—like most sane men, heroes included—he followed the promptings of his horsesense.

Marie Louise, who had felt the arm beneath her touch grow rigid, and the form contract, had her hand shaken off, and saw his arms slowly raised above his head.

"Remember, there's a lady." That was all that he said, and he moved in front of her.

The highwaymen lost no time in vacillation. The smaller one, a typical pickpocket, wizened and ratlike, handed his gun to his partner and with a deftness born of practice, stripped Sheridan of his watch and purse and studs, and even his cufflinks.

"You can go now," said the larger, tougher one, who had stood guard. "An' keep yer face in front o' yuh, young feller. Don't look round behind yuh, er we'll use the gat on yuh!"

Sheridan waited for Marie Louise to precede him, and they started on again along the road. The girl appeared distraught. He held his peace, thinking to give her time to regain her composure before saying any words of comfort or assurance.

So they continued on their way, neither speaking, until they had ascended the veranda steps of her home. She was a stride ahead, and when she reached the top she half turned. He put out a hand to detain her, and spoke heartily.

"I hope you're not upset, Marie Louise. It was really nothing much. My trinkets can easily be replaced, and there was no actual danger. I knew

they wouldn't shoot if I behaved; so you mustn't mind." He smiled, but she turned on him in a fury.

"You coward!" she gasped. "You— you despicable coward!" He winced like a spurred horse.

"Why—why, what do you mean? Why—why, Marie Louise!" he stuttered in blank bewilderment.

She waved him off. "Go, please," she said. "Don't make it worse by excuses!"

"Why, Marie Louise—little girl—you're beside yourself!" He attempted to grasp her hands, but she stopped him.

"I thought you were a man," she wailed with approaching hysteria. "I compared you with my heroes, and I thought you were as brave, as noble as they. I thought you would show yourself a hero if you had the chance; and now—now my dreams are gone. You have killed something within me. You are a coward!"

She stamped in her frenzy. "Will you please go? Can't you see I hate you—hate you?"

Had he not been so angry and hurt, Sheridan would have laughed. As it was, he asked brokenly: "What could I do? What on earth could I do? Two men with guns, and I had nothing!"

"You could have fought them. You could have torn their guns from them—as any brave man would have done. But it's useless to talk. Will you go, you coward, you craven?"

"Yes, I will go." He had pulled himself together, and he spoke with a contemptuous coldness which, even in her rage, thrilled and cut her with a sense of fear.

"I will go directly." He was talking slowly, measuring his words. "But first I wish to say that some time I shall perhaps have another opportunity to live up to your twisted creed of bravery. Then I think you will realize that what you consider heroism would be merely suicidal madness."

Indignant and fuming, he left her without a good night. She watched him stalk away, kicking now and then savagely at stray pebbles in his path.

Until he was out of sight she stood, a desolate little figure, huddled against a pillar on the porch. Then she crept wearily into the house. She was disillusioned—wronged, she thought; heart-broken, she knew. She had builded a god for herself, and had begun to worship him; but she had builded her idol of sand, and the storm had speedily burst upon it and crumbled it to pieces.

In her room, with sleep an impossibility, she tried to plan for the remainder of her broken life. She would enter a convent, leaving the world behind, and taking with her only the memory of a man as he should have been. She would take up nursing, go to the leper islands, or some other terrible place, and work among awful dangers, devoting her life to others. She would become a flirt. There were scores of men who would crawl to her at her slightest nod, but—and the thought became more insistent—were any of them worth the nod? Could any of them fill the gap in her life that the loss of Sheridan had left?

Again and again she went over the holdup. As her mind gradually grew calmer and clearer she remembered that in some respects Sheridan had not acted like a coward. He hadn't quaked; his teeth hadn't chattered; his voice had been firm, his speech coherent and unexcited. In fact, she began to see that he had kept his head remarkably well.

Had she been too hasty in her judgment? Was her creed of bravery really a twisted one? In fine, was it possible to think of an explanation and a reconciliation?

IV
Forty years of naval service had dulled what sense of tact the rear-admiral had ever possessed. He did the unpleasant things he had to do, and said the unpleasant things he had to say, in a blunt manner that was often a trial to his wife and granddaughter.

The next morning, when Marie Louise appeared for breakfast—a late breakfast—he was tramping up and down the room like a troubled old bull.

"I suppose you can stand bad news without crying or fainting, or anything like that," he blustered finally, watching her over his glasses.

The girl glanced up in excited curiosity and apprehension. What had happened now?

"No use crying or going off in all sorts of hysterics!" he was grumbling. "No use at all!"

The grandmother came over and drew one of Marie Louise's hands into her own withered one, and patted the girl's shoulder. The rear-admiral sat down, and fiddled with his watch-chain.

"It's Sheridan," he began. "After he brought you home last night he met with an accident—got into a fight with highwaymen. He was shot. They shot him all to pieces, and he's going to die!"

The grandmother felt Marie Louise relax in her arms, and feared that she had swooned; but the girl merely gasped and muttered in a queer, frightened voice, like a youngster repeating to itself broken bits of a lately heard fairy tale:

"They shot him all to pieces, and he's going to die!" Then she nodded to the rear-admiral. "Go on, daddy—tell me about it!"

She had once been overcome while swimming, and the memory of the helpless moments as she lay in the deep water had never left her. She was experiencing the same impressions now. She seemed enveloped in the same gloomy darkness. Her head throbbled in the same maddening way. She felt the same choking sensation, which not only compressed her throat, but crawled down and clutched at her very heart.

But she must be brave! She would

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not faint—she was determined upon that.

A copy of one of Whistler's heads hung on the wall opposite her. She fixed her eyes on the boyish face that smiled out at her from the frame. It was behaving very crazily, swaying slowly, mocking her with its smile, and murmuring over and over:

"He's going to die—he's going to die!"

Never looking away from it, she heard confusedly the rear-admiral's jerky, disjointed recital.

"Don't know what possessed him. Must have been crazy—just crazy, that's all. Heard it from Jamieson himself this morning, and he said that the lad must have been crazy to do it. Wasn't a chance to get away with it; there were two of them and they both had guns. He must have been a fighter, tho.—just a crazy fighter, I guess!"

He realized that he was rambling, and started over again.

"You see, Jamieson was held up last night on his way home from a late party. Just where the road turns off from the lake, you know. Lonely piece of land right there, and two men with guns jumped out and held him up and rifled him. Hardly believe it, would you? Never connect thugs with a place like this! Must have been working on one of the freighters. Anyway, just then Sheridan came round the turn, and one of the men covered him and told him to stop; but Jamieson says he just laughed savagely and jumped at the highwayman. Of course the fellow blazed away and shot him once or twice; but Jamieson says he came right on and closed in as if he'd never felt the bullets. They went down fighting, and tussled all over the road. The other chap was jumping around trying to get a shot at Sheridan and to keep his eye on Jamieson at the same time. I suppose, if the worst came to the worst Jamieson would have waded into the little rat who was covering him; but in another minute he heard a motor coming toward them, and the robber heard it, too, and bolted.

"There were three men in the machine, and it took their combined efforts to pry Sheridan off the hold-up man. He had him by the throat, and had almost choked him to death. Nearly gone himself, too; coughing and spitting blood. Well, they secured the robber, and rushed Sheridan to the hospital. You'd think it was Jamieson's own son, he feels so badly about it; and, bless my soul, so do I!"

The rear-admiral removed his glasses and brooded for a moment.

"I went over to the hospital as soon as I heard it. He got pegged four times, and two of the wounds are mighty bad—one in the stomach and one that they think went thru a lung. He was a very dear friend to you, honey—a very dear friend to us all, and I'm afraid he's going to die!"

"Yes," nodded the picture, "he's going to die!"

Marie Louise sighed piteously and nestled closer to her grandmother. She was a murderess—that was as plain as day. Her pettish taunting had made Sheridan throw his life away. He had told her that he might some time have another opportunity of living up to her twisted creed of bravery, and he had deliberately gone out to seek it.

As the hideous reality of what she had done bit its way to her brain she struggled from her grandmother's arms and staggered to her feet. The picture on the wall faded and disappeared in a mist.

"Oh, oh!" she quavered. "They've shot him, and he's going to die! And I'm going to die, too, daddy—because I love him!"

So she fainted, instead.

V

For more than a week a forlorn little maid spent the best part of each day just outside a door in a hospital corridor. For more than a week she alternately drooped and fluttered at the varying reports of a game that was in progress on the other side of the door, where a man was rolling dice with death.

Then, one day, a tired doctor came thru the door with news; and a dear old lady who had been with the little maid most of the time wept profusely. A blustering old gentleman who had also been in regular attendance, tramping up and down the hall, uttered several explosive ejaculations. The girl slipped off to a window at the end of the corridor, pressed her hands to her aching temples, and gazed out, wondering why the trees were so much greener and the sky so much brighter than they ever had been before.

The next day she was allowed to peep for a moment thru the door at a lined, unshaven face, a trifle less white than the pillow that supported it. The patient was asleep, so he did not see the tears in her eyes.

The next day he was not asleep, tho he seemed so; but he thought the tears in those black eyes were a figment of his imagination.

When at length they pronounced him strong enough for a visit, she was ushered in, to behold him shaven and shorn and rather glorying in a chaste dressing-robe of heliotrope hue. Both the patient and the visitor were shy. Besides, there was a nurse of forty who hovered near the bed like a mother-bird.

Marie Louise, seated so close that Sheridan could smell a perfume which brought back vividly the night of the dance, had lost her power of speech. Against her will she stared, fascinated, at a heliotrope shoulder thru which, she knew, a bullet had torn its course.

"If only he would speak!" she thought.

"If only she would say something!" thought he, discovering new wonders in her hair and her eyes and her mouth.

The flowers needed fresh water, and the nurse left the room with them.

Marie Louise raised her eyes and caught his, which were fixed hungrily on her face.

"Does—does it hurt—much?" she stammered, indicating the shoulder.

"It's stiff," he confessed. "This one's all right."

"This one" was the one nearest to her, and the hand belonging to it was stretched outside the counterpane, not far from her own hand.

"You've been very good," he said slowly, with his eyes down, like a bashful boy. "They told me how thoughtful you were. And you sent flowers and things—and inquired—and everything—just as if you were my people. He stroked a heliotrope tassel with the hand outside the counterpane. "I have no parents or relatives, you know, and the flowers and things—and you took such an interest—even when I was almost over the edge. I feel a gratitude that I can't very well explain, lying here—like a useless invalid."

"Oh," she breathed, "you mustn't talk like that about such—such shabby little efforts!"

"I was rather out of my head for a while," he went on, not heeding her. "When I came round, your flowers were about the first things I saw clearly. You've no idea how they bucked me up. Do you know?"—he was twisting the tassel nervously—"I believe an illness of any kind brings out the feminine qualities in men. I was lying here last night, feeling mighty lonesome and blue, and the nurse brought in your flowers—roses they were, and—and the scent of them brought back thoughts, you know. It made me so miserable and so happy that—I couldn't help it—I cried. I actually cried like a girl." His face was averted. "I thought I was a man, but I guess I'm pretty much a baby!"

Marie Louise had slipped to her knees and buried her head in the counterpane, very close to the tassel and the hand.

"Oh, no!" she sobbed. "You're not—you're not a baby. You're a hero! And I'm a wretch for what I said that night. Oh, won't you please, can you ever—can a hero ever forgive a little fool?"

The wound in his shoulder pained him when he moved, and he had three others scattered about, so I don't know how he did it; but in some way he managed to shift his head over until he was near enough, and then he kissed her. He kissed her on her little ear, because her face was hidden.

"I'm not a hero—I'm a lover, and you're my sweetheart," he murmured. "My sweetheart!" he repeated, and kissed that little ear again.

It Paid to Feed Hogs

Farmers have been asked to increase pork production by breeding more sows and by feeding the present supply to greater weight. Will it pay to feed hogs at the present prices of corn and hogs? This question is answered by the experience of actual feeding operations. The Missouri college of agriculture conducted a feeding experiment last summer to obtain information which would answer such questions. Seventy-three head of Poland China pigs, farrowed in April and May, were placed on feed about July 1 so that they could be marketed during the International livestock exposition at Chicago the first week in December.

These pigs weighed 34 pounds each when started on feed. They were full fed on corn, 9 parts, shorts, 2 parts, and tankage, 1 part. The shorts and tankage were fed in a slop once a day. The pigs were on rape forage until the forage was exhausted. Corn was fed by hand twice each day.

A summary of the grain fed and gains made shows that these pigs made a pound of pork on 3.9 pounds of the grain mixture. Figuring corn at \$1.40 a bushel on the farm, shorts at \$2.75 a hundred, and tankage at \$90 a ton, the gains cost \$11.15 a hundred, not including the rape pasture.

The pigs weighed 202 pounds each on the Chicago market, and sold for \$18.50 a hundred. Allowing \$2 a head for pasture for the season, and not including marketing expense, these hogs netted \$10.34 each, or a total of \$754.82 clear profit. Had these hogs sold at \$16.50 instead of \$18.50, the profit would have been practically \$7 each. Figuring corn at \$1.68 a bushel instead of \$1.40, the profit is \$7.72 a head at a selling price of \$18.50 or \$4.36 a head net when sold at \$16.50.

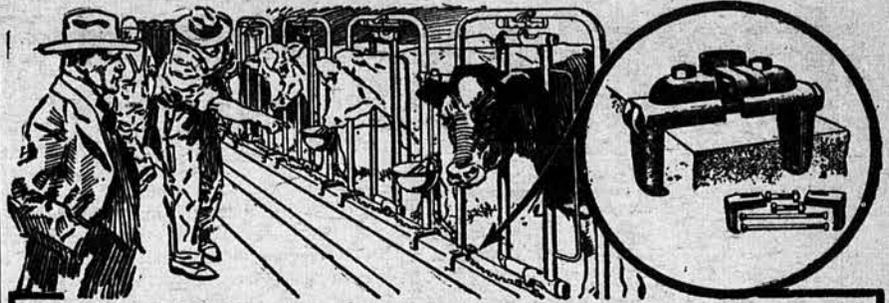
Champion of Farmers

I believe 3/4 of the people of my acquaintance are for Capper for senator. He is the one man we should have in the senate. It seems to me he is the only champion the common people have; that is, the farmers, of which I am one.

W. H. Taylor.

Benton, Kan.

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Success in Farm Gardening

Western Kansas Can Increase Food Production

BY MRS. C. K. TURNER
Fowler, Kan.

A GOOD FRUIT and vegetable garden is half the living and cuts expenses wonderfully. To do one's bit in this way is not only being patriotic and helping the government but helping one's self, also.

It requires considerable labor to raise a garden, especially in Western Kansas. We are certain to have our dry seasons, hard winds and more than our share, it seems, of devastating insects and destroyers. We must not only fence against pigs and chickens but also prepare to keep out rabbits and other marauders. The pesky little ground squirrel often keeps us guessing. More than once, after close watching, we have surprised him nibbling at little green things. We chased him to his lair, where a bucket of water and the dog finished him.

Once last summer, when I found to my sorrow that something had ruthlessly plucked my green peas over night and wastefully scattered both peas and pods about, I discovered the culprits to be healthy, half-grown rats. When the sweet corn was eaten off a third of the way up the cob and guesses as to what was doing it were made, I surprised a flock of black birds breakfasting. They were out, I suppose, after the "early worm" which infests it and, incidentally, took a little corn.

But when the watermelons vanished overnight it took keener ferreting. Nevertheless the guilty persons were soon spotted and will hereafter be kept in mind.

I have given you just a little insight into some of the minor difficulties of the job.

But I started out to tell something of management, varieties and success.

As rainfall is very uncertain and moisture a necessary adjunct of successful gardening some means of irrigation must be arranged for. We have an artificial pond or reservoir built for holding a stored water supply. As wells never go dry in this section the proposition of keeping on hand water sufficient for a truck patch is not difficult.

Some persons try watering with a hose. For a very small area, this works well. We employ this method for keeping the lawn green and the flowers, which are the wonders of passers-by, luxuriant.

To have thrifty and early cabbage and tomato plants, I start them in the house quite early, planting seed in shallow boxes, and keeping the earth warm and moist till the plants appear. By placing them out of doors when the weather permits, I gradually harden them till they become stocky and thrifty and are almost sure to grow when transplanted, unless I get in a hurry as I did last year and transplant too soon. I had 75 tomato plants frozen May 6. If I had covered them, however, with empty fruit jars as in previous years, this loss might have been averted.

When making garden if the soil does not seem sufficiently moist for germination, water is poured in the rows and allowed to soak away and the seed is then planted and covered with a thin layer of soil, well pressed down. By this method things come up much more quickly than otherwise. I often sprout melons, beans and cucubers before planting, by placing the seeds between dam-

pened layers of cloth and keeping them in a warm place for several hours.

Everything is planted in rows sufficiently wide apart to be easy of cultivation. When a single horse cultivator cannot be used a wheel hoe greatly facilitates labor. A garden tool of this sort with adjustable handles and convenient attachments can be purchased for from \$2.74 to \$3.50, according to the make. The back breaking, long handled, old-fashioned hoe is seldom used since we bought the hand cultivator.

As all varieties of fruits and vegetables do not do well here in the West I will mention only those we have tried out and that have been a success.

Rhubarb thrives well if given plenty of water and a rich soil. Gooseberries are constant bearers and require little care. The Concord grape does well, but it is a problem to keep the birds from devouring the fruit before it is ripe. Black currants are sure croppers but the red ones are said to be hard to handle. We are trying a few of Fay's Prolific, and also are experimenting with ever-bearing strawberries of the Progressive type, but cannot say as to the outcome.

Of a dozen Miller red raspberries set out last spring, only one survived, while the Cumberland blackberries all lived, and even bore fruit. The Lagrange blackberry is difficult to protect from winter killing.

In the vegetable line we find the Earliana the best of all tomatoes for this section. Burpee's stringless green pod bean never fails, and is excellent for canning as well as for the table. For a shell bean, the Mexican and Dwarf Horticultural can't be beat. For early cabbage, the Norseman excels all other varieties. Lettuce, radishes, onions, beets, carrots and parsnips of almost any variety do well. Dwarf specimens of peas thrive best, unless well protected. Irish potatoes are not always a sure crop, but sweet potatoes produce abundantly.

The Hubbard squash also bears well, if one can keep the bugs down. Hand picking is about the only sure remedy. Of sweet corn, Stowell's Evergreen is the most satisfactory for a main crop.

Waging war against garden pests requires both ammunition and care, and is fully as important as waging war against the kaiser.

To destroy the little garden flea that works on radishes and cabbage, apply ashes, tri-weekly. Tobacco dust is an effective remedy in fighting insects, if freely and often applied.

Last summer we hit upon an ideal plan for outwitting hordes of creeping things that haunt gardens.

A tomato can was stuffed with rags soaked in kerosene. This was ignited and placed on an inverted jar set in a tub containing a bucket of water over which had been poured a pint of coal oil. The bright light proved to be an attractive lure. Moths, millers and bugs of all species and descriptions by hundreds came flitting to their doom.

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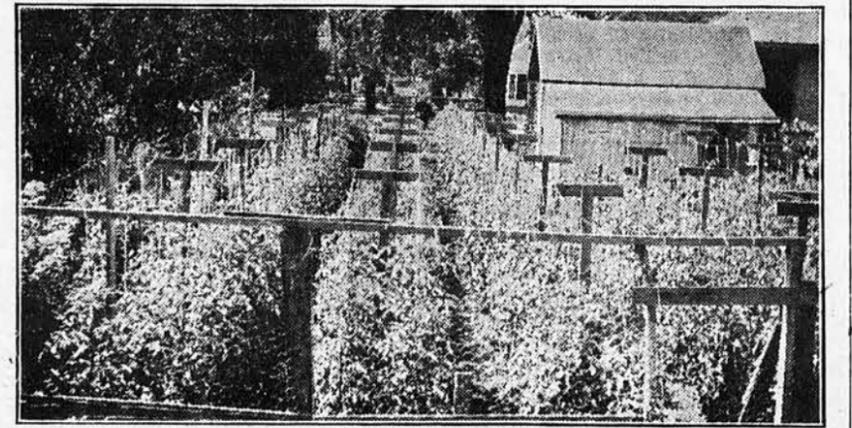
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Here is a Kansas Tomato Patch; it Yielded at the Rate of 58 Tons an Acre; Irrigation Was Used.

Starting Early Vegetables

Home gardeners who do not own a hotbed and who cannot readily buy young plants can get much earlier crops of tomatoes, cabbage, cauliflower, peppers, eggplant and lettuce if they will start the seed for their early gardens in seed boxes in the house. Early potatoes sometimes are forced in the same way. Seeds so planted germinate and are ready for transplanting by the time it is safe to sow the same kind of seed in the open ground. When danger of frost is over and the soil is dry enough to work, therefore, the home gardener starts his early garden with seedlings well above the surface. Transplanting, if done properly, instead of hurting, seems to help such plants develop a strong root system. Garden enthusiasts should get a good deal of pleasure from this kind of preliminary indoor gardening. They also can use boxes to hasten the blooming period of many sorts of flowers which stand transplanting.

Seeds should be planted in a box 3 to 4 inches deep, 12 to 14 inches wide, and 20 to 24 inches long. A layer of about 1 inch of gravel or cinders should be placed in the bottom of the box, then it should be filled nearly full of rich garden soil, or soil enriched with decayed leaves or manure. The rich soil beneath the family wood pile or around decaying logs is splendid for this purpose. The soil should be pressed down firmly with a small piece of board and rows made 1/4 to 1/2 inch deep and 2 inches apart crosswise of the box. The seed should be distributed 8 or 10 to the inch in the rows and covered. The soil should be watered and the box set in a warm place in the light, i. e. the sunshine by a window being best. Water enough must

doubt as to the quality from these sources, it is advisable to purchase of a trustworthy seedsman.

The amounts of seed to buy will depend on the size of the garden, the number of succession plantings, and to some extent on the weather. It is well to use enough seed to secure a good stand, but too thick seeding is injurious to the plants and increases the tiresome work of thinning as well. It is always advisable to buy enough seed to allow for a second planting in case unexpected difficulties arise. Those vegetables which are most likely to germinate poorly under unfavorable conditions are cucumbers, muskmelons, watermelons, squash, turnips, salsify, eggplant, celery, parsnips, peppers and lima beans.

Squash Growing

Summer squashes are not fastidious as to soils, tho they, like most garden plants, prefer a warm, sandy loam. The most important requirements for success are an abundance of manure and good cultivation. The hills may be spaced 5 or 6 feet apart. The plants will occupy the ground all summer if the fruits are harvested at a usable stage.

In preparing a "hill" for the planting of summer squashes, a hole 2 1/2 feet square and 12 inches deep should be dug; a bushel basketful of manure should then be mixed thoroly with the excavated soil, which is then replaced in the hole. It is better to use well-rotted manure, but if the mixing with soil is done properly there will be little danger of heating. With chicken manure, use only one-half of this quantity. This preparation can very well be

Will Your Seeds Germinate Properly?

The seed situation in Kansas is very discouraging. There is but a very small proportion of the kafir seed that will grow, and much of the corn also is worthless. Every seed that is planted this year should be tested; unless this is done there is going to be much disappointment, and a great deal of wasted effort. You can get help in seed testing from your local schools, from county and district agents and from the Kansas Experiment station. By all means test all of the seed, especially of the sorghums and of corn, and do some of it at once, so you will have a general idea of the condition of the seeds.

A very serious shortage of good seed is certain to develop. Every man should make an effort to get his seed at once, so the condition will adjust itself as rapidly as possible. Study the classified and display advertising in this issue of the Farmers Mail and Breeze. Write to the agronomy department of the Kansas State Agricultural college, Manhattan, for the seed list of Kansas farmers which it has prepared. From these sources you should be able to get the seed you need.

be given from time to time to cause the seeds to germinate and grow thriftily, but not enough to leak thru the box. If a piece of glass is used to cover the box, it will hold the moisture in the soil and hasten the germination of the seeds.

When the plants are an inch high they should be thinned to 1 or 2 inches apart in the row to give them space enough to make a strong, stocky growth. If it is desired to keep the plants which are thinned out, they may be set 2 inches apart each way in other boxes prepared as mentioned for the seed box. When the weather becomes mild, the boxes of plants should be set out of doors part of the time so the plants will "harden off" in preparation for transplanting to the garden later. A good watering should be given just before the plants are taken out of the box for transplanting so a large ball of earth will stick to the roots of every one.

Buying the Garden Seed

Too much emphasis cannot be placed on the importance of buying good garden seed. The seeds contain within their embryos the qualities that determine the nature of the crops, and no matter how good the soil or the care may be, these cannot overcome the effects of poor seed.

Seeds should be fresh, plump, bright in color, and of good weight. One should not expect to obtain the best seed at a low price. A small difference in quality will quickly overcome any reasonable difference in the price, even tho this may appear to be large at the time of purchase. It is best to buy early to be certain of securing first-class seed and good varieties. Reliable seed may often be bought of grocery or hardware stores, but if there is any

done as soon as the ground is in condition for working in the spring.

Squashes are tender plants, and cannot endure the slightest frost, so seed should not be planted until the soil is well warmed. Ten or a dozen seeds usually are planted in a hill. These should be thinned to one or two plants. The soil must be stirred by shallow cultivation until the plants cover it.

There are in use in this country several types of these squashes. They must all be used while very immature; if the thumb nail does not readily puncture the skin of the fruit, it is past its best stage.

Scallop or Pattypan squashes occur in white and yellow colors. Yellow Summer Crookneck also is much planted and is a good variety. These squashes have short vines and usually are called bush forms. English forms of summer squashes are called vegetable marrows, and can be obtained from many American seedsman. There also is an Italian summer squash under the name of Cocozelle, which is offered by a few seedsman. These last have long vines, and should be given as much as 8 or 10 feet between hills.

Winter squashes such as Hubbard, Green and Yellow, Delicious, and Boston Marrow require the cultural treatment mentioned, but should be given 10 to 12 feet distance between hills. Winter squashes should be stored in a dry place where the temperature does not go below 45 or 50 degrees F. An upstairs room is much better for this purpose than a cellar. The fruits must be ripened thoroly, but not frosted.

The supply of nitrogen may be maintained in the soil most economically thru the growing of legumes. Four-fifths of the air is nitrogen.

Write for this Double Value

Quality—Price—AND the "Know How" of Success

The shortage of fruit—the higher-than-ever fruit prices received by every fruit-raiser—gives everyone the best of reasons to plant fruit trees—and plant quick! The United States Chamber of Commerce reports: "\$110.00 per acre is average return per year from American orchards and only \$13 per acre from grain crops." Plant trees this spring and grow your war crops between the tree rows—get double profits from your land. But—before you plant, get the double value of Stark Trees at Stark 1918 low prices plus the Stark 102 years of Orchard Experience and "know how" of Success in Fruit-Growing—for your safe guide in getting quickest, biggest fruit and money returns. Write for two free 10x12 inch Books—double value in orchard-success facts and guides and



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But not unless you have the right kind of a garden.—And you can't raise a good garden without good seeds to start with.—Iowa grown seeds are the best in the world and are the kind for you to plant, and Field's is the place to get them. Write For Garden and Seed Book and Seed Sense, Free Our Seed Book tells you the real truth about the seeds, and gives you common sense instructions about gardening. And Seed Sense is the dandiest little garden paper you ever saw. We send it free to our customers. Get these books, and raise a big garden and beat the "High Cost of Living." We will send them free.

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Next time you have guests, try Wongbok salad and tickle their palates. This delicious plant was imported from China. It combines the flavor of celery, cabbage and lettuce. Very brittle and juicy. Plant it just like cabbage. Now is the time to sow Wongbok.

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Only \$6 Per Bushel Germination Guaranteed

Farmers, you have heard the cry of the nations, "Produce More Corn." You cannot grow but one crop of corn a year but you can grow two ears of corn on every stalk if you will plant Double Yield Corn. Cultivation and Seasons have a great deal to do with production but without proper seed your year's work is lost.

I Have Furnished Middle Tennessee Experiment Station Their 1918 Seed Corn

Take the first step in preparedness and order your supply of Double Yield Seed Corn today. I only have 2,000 bushels to sell. First come, first served. Cash with order. Shelled and sacked, F. O. B. Columbia, Tenn. Reference the three banks of Columbia. I can furnish Neals Paymaster also at the same price. **T. N. FIGUERS, JR.,** No. 5 PUBLIC SQUARE, COLUMBIA, TENN.

With the Home Makers

It's Almost Flower Time Again

WHILE WE are planning bigger and better gardens this year to increase the food supply of the country, let us not forget to beautify our homes and make our surroundings bright and cheerful by having plenty of flowers blooming about us.

The simplest flower garden is the border type and it is always effective. It is the kind of flower garden that appeals most to the busy woman with the minimum of time for flower tending, but who likes to have flowers. Naturally this border is planted near the house, along a fence or outbuilding, within easy reach of the one who must take care of it.

The massing and grouping of flowers for color effect is an important part of the garden arrangement. There are

lightful combination. Unlike the other kinds of poppy, this can be cut and will keep surprisingly well in water. Arranged with the blue blooms of the ragged sailor it gives the table a delightful colonial centerpiece of buff and blue.

Other yellow flowers are marigolds, with prim, closely set, velvety petals, and the various tones of yellow zinnias. Nasturtiums, too, running the whole range from chocolate brown to buff, must be included in the plantings of yellow.

It takes some forethought to put these flowers where they will not insist upon swearing at the pink and scarlet poppies. And you may find it necessary to have a separate section at a safe distance from the main flower garden where the yellows may be planted. There are pink poppies and



certain intense yellow tones, orange tints of some marigolds, that must be kept by themselves and toned down by mingled plantings of pale lemon and buff, as provided by some of the zinnias.

Scarcely any garden has enough white. The white flowers give the needed separation between the patches of bright color. And in planting groups of blue or purple flowers, especially, the white should be used to offset the density of these colors. Solid masses of purple or blue make heavy masses of color that seem to overpower the garden unless relieved by interspersed plantings of white.

Besides considering the color of the blooms, the gardener must also have in mind the height to which the plants will grow, and must group them with relation to their size. Tall cosmos and hollyhocks planted along a fence or hedge make a good background for the garden, says a writer in the Country Gentleman. Plant the cosmos next to the fence and the hollyhocks a little in front. The hollyhocks will bloom early and when these blooms are past and the stalks cut down, the cosmos is well started toward making a feathery green screen.

Early and Late Cosmos.

By planting early and late cosmos together the blooms come along in July and last until frost. No flower is more decorative or lasting. The old-fashioned hollyhock did not bloom until its second season, but one of the seedsman's recent triumphs is the annual ever-blooming hollyhock. These seeds, started under glass and set out in May, will bloom in July. Sown in May in the open they bloom in August.

So if you prefer to include only hollyhocks in your rear-fence planting, you may get wonderful color effects in single and double blossoms by planting both early and late, thereby enjoying these lovely old favorites practically all summer. They grow 8 to 10 feet high—easily the most conspicuous and effective feature of the garden.

The blue tones in the garden may be supplied by the hardy larkspur and the annual ragged sailor. The larkspur attains a height of 7 feet or more, so that has a place well back in the garden; and in front of it, leading down to the ragged sailor, which grows only 2 or 3 feet high, is snowy, hardy phlox to mingle with the blues and tone them down.

A favorite yellow flower to plant in front of the ragged sailor is the California poppy. It must be sown where it is to bloom, for, like all poppies, it will not thrive after transplanting. Its silvery green foliage, with buff blooms edged often with orange, makes a de-

white poppies, some with a carmine edge on the satiny petals that make a very beautiful effect when planted together, and it is the form and texture of this flower that give it its chief beauty.

Dahlias, tho they require staking up, which always detracts somewhat from the desirability of a flower, are too beautiful to omit from any garden. They are very effective grown as a hedge at one side of the kitchen garden, where their stakes are less objectionable and where they thrive best.

Dahlias and Gladioli.

This is likewise the ideal way to grow gladioli, for both of these plants are grown from tubers and should be treated like potatoes when it comes to cultivation. No other flowers grown will better repay faithful use of the hoe.

The dahlia must not have too rich earth; however, or it will be nothing but leaves. They must be put either in a copper holder or with a copper tray for a background if arranged in glass—only a few of them placed loosely in the vase. Try this and see how the color tones in the flower are answered by their reflections in the copper.

The small, old-fashioned zinnia has developed, thanks to modern seedsmen, into a generous-sized flower quite as beautiful as the dahlia itself. The pale yellows, cardinals and certain terracotta tones, and even now and then an unusual brown in these blossoms are among the prettiest colors.

Speaking of brown tones in flowers reminds one of that too-little-grown plant, the wallflower. Its velvety petals are gold and brown with what one can only describe as a violet bloom over them, and there is a reminder of violets in the fragrance, too. This flower is so distinctive as to be worth the trouble it makes. It is necessary to protect it well in winter if it is to have any chance for life next spring. Yet in a temperate climate it can be grown in a sunny nook and give blooms until Christmas.

Unpretentious Mignonette.

Mignonette is the most unpretentious little posy in the garden. Its low branching stalks with their peculiar mignonette green color, and the tiny blossoms with their touch of brownish red, are a delight. And its indescribable fragrance entitles it to front rank as a nosegay. A low, broad crystal bowl filled with mignonette, standing before a window where the incoming breeze plays over it, will fill the whole room with its faint, delicious perfume.

Quite different is the little annual portulaca. She is a cheery sort of body,

and can stand hot sunshine and poor soil wonderfully. If you have a hot, sandy spot where more aristocratic flowers refuse to grow, try portulaca. But be sure to sow the seed late in the spring after the ground has become really warm, otherwise you will have your labor for your pains.

These are Busy Days

BY MRS. DORA L. THOMPSON
Jefferson County

The melting of the snow has put a little water in the cistern but not enough for laundry purposes. We are fortunate in having a laundress who does this hard work for us in her own home. Those accustomed to "breaking water" do not mind the task. We have had very little experience in that line. The laundress mentioned uses the hardest of waters and lye. In boiling the water with lye solution there is a thick, black scum that accumulates on the surface. This is skimmed off as carefully as possible but even with this care, some specks of the black remain in the water and stick like gum to clothes placed in for boiling. To avoid this trouble, our laundress places the clothes to be boiled in a big, cotton bran sack. The specks adhere to the sack and not to the clothes within.

We have had some busy days since the year-old steer was killed. We placed about 60 pounds in a jar to be "corned" or cured. Much of the remainder has been sealed in cans. We haven't many hours in each day for extra work after our regular housework is done, consequently, we have no big records of which to boast. Our best efforts resulted in only 40 No. 3 or quart cans for two days' work. Then we baked, fried and boiled one day; sealed and processed the next. We were using the steam canner that is cemented in a furnace out of doors. That was one reason we used the tin cans. It would have been difficult in the very cold weather to can in glass out of doors. The processing was mostly done at 250 degrees Fahrenheit. This temperature on the inside of a glass can and zero on the outside would be hard on the glass.

Some of the canning has been done (in the house) by the hot-water method with Mason jars. In this way some of the fat is forced out of the cans into the boiling water. This is only natural and need not worry the canner as it often seems to do. We intend to use bones and small bits of meat in making soup stock.

We shall can the plain stock, much condensed, this year. It may then be used for gravies if we wish or combined with any vegetable for soup.

The corn cure mentioned is an old time "rule." For each 100 pounds of meat, 6 pounds of salt, 1 pound of brown sugar, (we used sorghum—one pint), 1 ounce of salt-peter are used. Much of this will be canned. We shall dissolve gelatine in the meat liquor and pour over the meat in the can. When opened and served cold, this meat jelly will slice as well as the meat.

We feel that in canning this meat we are making it possible to truly conserve it. If we tried to keep it fresh or to cure it, we should be obliged to use it up quickly. In its present form it may be kept for years. During the hardest working season, meat of some kind once a day, is appreciated. One tires of too much chicken; pork is not much relished in hot weather; and here fresh fish and beef may not always be had even if we took the time to drive to town for them.

We hope when this work is finished to attend to our spring sewing. We know the warm days of spring will be no time for such indoor work. There are many garments like boy's madras blouses, overalls, and so forth that we can buy ready-made as cheaply as we can buy the material and make them. Such sewing is not going to take our time and energy. We hope to be ready for gardening and chicken raising by the first of April.

The advice is often given, but not often followed, that we should make our garden on paper first. A garden plan is always an advantage over a haphazard planting. Perhaps one of the best arguments in its favor this year is that it enables the gardener to know how much seed she will need. Seeds of many sorts are very scarce. Perhaps if anyone could tell just how far short of the demand the supply is

likely to be, he might cause seed houses to be swamped with early orders, even as a rumor will sometimes cause a run on a bank.

Besides helping a gardener to order seed wisely, a good plan will often make it possible for other members of the family to help in the work and cause no confusion. Sometimes the man of the place has an hour or two that he is willing to devote to gardening if we will tell him what we wish done. We expect to hand him the garden plan and the seeds this year.

We have consulted the children whom we hope to see some day enrolled in a garden club in making this plan. They have their rows and are as eager as all amateurs are to begin work.

Easter Flowers Cost Little

You may have pretty blooming plants for Easter for a few cents each if you plant and care for them yourself. The bulbs for these plants should be planted from four to eight weeks before Easter.

One of the easiest bulbs to grow and the surest to bloom is the paper white narcissus. These bulbs cost 5 cents each and it takes six weeks for them to bloom. Place three or four of the bulbs in water or soil and leave them in a cool, dark room for two weeks to start the roots, then bring them into a warm living room to bloom. These flowers bloom in high clusters of starry white flowers. Any glass bowl or dish that is at least 2½ inches deep will do for the bulbs when planting them in water. Pile pebbles about the bulbs to hold them upright and half cover the bulbs with water. Renew the water as often as is necessary.

When soil is used for the bulbs, put them in a shallow dish and cover them with the soil. Keep well watered and treat the same as those grown in water. The pot should be shallow so the roots will fill the dish or they will not bloom so well. The yellow narcissus bulbs are grown the same as the white but it takes them a little longer to bloom.

Crocus bulbs may also be grown in the house for Easter. Oxalis and crocus bulbs may be pressed into the holes of a coarse sponge, hung in a dark closet for a week and then brought out by a window in a warm room. The sponge should be kept wet.

Mrs. A. E. Riffle.

Mountain Lake, Minn.

Soft Collars are Stylish

Many men prefer homemade shirts and the style shown in No. 8680 is sure to please. A soft turnover collar is at-



tached to the neck; the breast pockets are box-plaited and finished with neat pointed flaps. Sizes 15 to 19 inches neck measure. This pattern may be ordered from the Pattern Department of the Farmers Mail and Breeze, Topeka, Kan. Price 10 cents.

When Lorena Buys a Hat

Before Lorena buys a hat, A gown, or anything like that, She hunts a mirror, then and there, And tries it on with anxious care; And even brings a friend or two To study every point of view, To see if it's becoming.

But I was wondering today If, when she has a word to say Or something she would like to do, She studies every point of view— This side and that, in front, behind— Before the mirror of her mind, To see if it's becoming.

—Ladies Home Journal.

Eat no wheat on Wednesday.



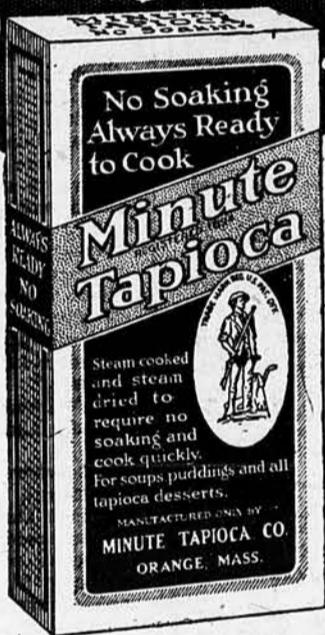
Minute Tapioca



KRIS KRINGLE PUDDING

2 heaping tablespoons Minute Tapioca, 1 lb. prunes, 2½ cups prune juice, ¼ cup cider, ¼ cup sugar, 3 envelopes Minute Gelatine, ½ lb. figs, ¼ cup cherries, ¼ cup walnut meats, ½ teaspoon cinnamon, ½ teaspoon salt.

Cook the prunes until tender—drain, stone, and chop. Chop the cherries, figs, and nuts. To 2½ cups hot prune juice add the Minute Tapioca and cook in a double boiler 15 minutes. Then add the sugar, gelatine, and cinnamon, stirred together dry. Add the cider and remove from the fire. Mix the nuts and the fruits and combine with the liquid, mixing thoroughly. Rinse a fancy mold and chill the pudding in it. Let it stand over night if possible. When ready to serve, turn out on a large plate and serve with whipped cream to which has been added a dessert-spoonful of powdered sugar and a sprinkling of cinnamon.



FRUIT PUDDING

2 envelopes Minute Gelatine, 1 cup pineapple, 1 cup sugar, 1 cup boiling water, 1 cup strawberry pulp, 2 cups cream.

Mix one envelope Minute Gelatine with ½ cup of sugar and dissolve in ½ cup boiling water. Set aside to cool and when beginning to thicken add 1 cup cream whipped. Just before it sets, stir in grated pineapple, mix thoroughly, and turn into mold. Make a second part just the same as the first, using strawberry pulp instead of pineapple. Set aside until cool but not jellied, then pour on the top of the pineapple jelly, which is already solid, and set back in refrigerator. When strawberries are not in season use any other fruit obtainable.



SAMMIE'S TAPIOCA

(Receipt taken from the Army Cook Book)

4 heaping tablespoons Minute Tapioca, 1 cup sugar, ¼ lb. evaporated peaches, 1 qt. water, pinch of salt.

Wash peaches, then soak over night in 1 qt. of water. Cook in same water until soft. Strain. Add water to liquid until it measures 1 qt. Heat in double boiler, add Minute Tapioca, sugar, salt. Cook 15 minutes, add peaches (first put through sieve). Cook for few minutes. Serve cold with fresh or canned milk. Prunes may be used instead of peaches.

An Hour Saved is an Hour Earned — for Yourself

HOW would you like to have an extra hour in every day? An hour to sit in your good easy chair, to look at a magazine, and to have a little gossip with a neighbor over the phone.

Save an hour a day. And still give the boys that good cooking you're famous for. Give them Minute Tapioca and Minute Gelatine desserts that will add to your fame.

No soaking, no fussing; prepare your dessert while you are doing other work, then let it cool and it's ready to serve. Minute Tapioca cooks in 15 minutes, Minute Gelatine dissolves immediately in hot water.

And it gives you a pleasant change, a chance for variety. Minute Tapioca and Minute Gelatine can be made into dozens of different desserts. Any fruit you happen to have may be used to advantage this way.

Look these receipts over. Make one as a trial. Then watch your men folks glance around to see what the chances are for a second helping.

Send for our Minute Cook Book (free). Ways of using Minute Tapioca and Minute Gelatine for hearty working-man dishes, as well as for desserts. Receipts for surprising new dishes that you will be proud to set a neighbor down to. Buy genuine tapioca. You will know it by the blue band and the Minute Man. It is made from genuine tapioca flour



PRUNE TAPIOCA DESSERT

1 pt. milk, 2 heaping teaspoons Minute Tapioca, 1 tablespoon butter, 2 tablespoons sugar, 2 eggs, 1 cup prunes, salt.

Cook the milk, Minute Tapioca, and pinch of salt in a double boiler for 15 minutes. Remove from fire and add butter, sugar, and yolks of eggs. Pour into a buttered pan and bake for half-hour in a moderate oven. Have ready the prunes that have been steamed till tender and rubbed through a sieve. Spread the puree over the tapioca. Pile roughly on top of prunes the whites of eggs well beaten.



COCOANUT TAPIOCA CREAM

1 qt. hot milk, 2 level teaspoons Minute Tapioca, 3 tablespoons cocoanut, 1 small cup sugar, 2 eggs.

Cook the hot milk, Minute Tapioca, cocoanut, and sugar together in double boiler for 15 minutes, stirring frequently. Add the beaten yolks of the eggs and remove at once from the stove. Cover with the whites of eggs beaten to a stiff froth with a little sugar, and brown in a quick oven.



CHOCOLATE OR COCOA BLANC MANGE

½ cup Minute Tapioca, ½ cup sugar, vanilla, 3 cups chocolate or cocoa made proper strength for drinking, salt.

Add the Minute Tapioca, sugar, and little salt to the chocolate or cocoa and let cook 15 minutes, stirring frequently. Remove from stove, flavor with vanilla, and pour into mold. Shown here molded in a teacup and served with whipped cream.

MINUTE TAPIOCA COMPANY, 21 N. Main St., Orange, Mass.

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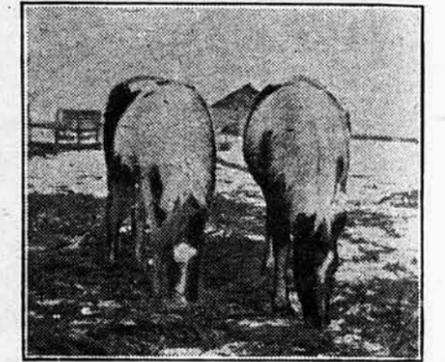
Why Fred Could Not be President
BY JOSEPHINE REED

AND GEORGE Washington said, "Father, I cannot tell a lie. I did it with my little hatchet." "Couldn't he really tell a lie, mother?" "I suppose he could tell a lie but he meant he would not." "Well, if he said he couldn't tell a lie and he could, why he told a lie then, didn't he?" "I guess you're tired of the story, Frederick." "No, I'm not. Say, mother, if he would've told a lie he couldn't a been president, could he?" "Probably not, Frederick. If he had been the kind of boy that tells lies he would not have grown up to be such a great man and they would not have made him president." "You said one time maybe I'd be president, didn't you?" "Yes, Freddie; every boy born in the United States has a chance to be president. It all depends on what he makes of himself." This was a big thought for a little head and Fred was quiet for a whole minute. When he went outdoors he soon had occasion to think of something else for Harvey Willis came into the yard and said, "Have they 'rested your father yet?" "My father? What do they want to 'rest dad for?" "For harboring a savage dog." "Huh! Who's a savage dog?" "Jack is. He 'tacked Georgie Brown." "Well, 'spose he did. Georgie Brown teased him." "Any way, they're going to 'rest your dad and shoot Jack." Frederick was not worried about father for he knew dad could take care of himself, but he couldn't bear to think of Jack being shot. In a short time father came home. "Have to appear in court with Jack," he told mother. Then a search for the dog began, but no Jack could be found. "Fred," said father, "where is Jack?" "I dunno." "Son, I want to know where Jack is." "I dunno," repeated Fred, his fists going up into his eyes. "Frederick!" "James," said mother, "Freddie couldn't have hidden him so you could not find him. Besides, the dog would howl." "But where is he?" persisted father. "Poisoned, perhaps. Some one may have been glad of an excuse." Father paid his fine to the court and the search for the dog was given up. Not long after this another exciting event occurred in the Goodwin family. Frederick was called into mother's room one day and introduced to his new sister. "Sister!" he exclaimed. "Is it a girl?" "Yes, we have one boy." "Oh, but you must have another boy. You must," he insisted. "But why, Freddie? I have you." "But I won't do. You must have another boy, 'cause I won't do at all." "I believe that boy is sick," said mother, as Fred left the room. "Law sakes, no," said Liza, "not the way he eats. Nebber saw nobody eat so much 'tween meals in my life. But he shuah does ack funny. I b'lieve he's got in with some bad boys. He don't stay home like he used to." "You must look after Freddie more, James, until I can take care of him again," said Mrs. Goodwin. Father looked concerned and rose from his chair as he noticed Fred slip slyly out thru the kitchen door. Following him at a safe distance he saw the boy suddenly start on a dead run and it was all he could do to keep up. At last Frederick entered a vacant house set back in a large lot, and going in immediately after, he saw a neglected looking little pup jump into Fred's arms and smother him with kisses. The boy turned and saw daddy. "Oh dad," he began, his lower lip quivering, "now you know why you have to get another boy, 'cause I told a lie about Jack, and I can't never be president and mother will be so disappointed."

"No, she won't, either, Freddie," said dad, taking boy and dog into his arms. "Mother and I would rather have a kind boy in the family than a president." "And Jack?" "We will send him into the country to stay with Uncle John, and when your vacation is over you can bring him back with you. Browns are going to move away soon and no one will make any complaint." And Frederick went home that day happier than if he had been president.

Beauty and Dandy are Great Pets

This picture shows my two ponies. The one at the left is Dandy. He is sorrel and white spotted. The one at the right is Beauty. She is black and white spotted. We can drive the ponies to town and to Sunday school and any place that is not too far. They are great pets and are easily taught. They will shake hands with us.



They are Easily Taught.

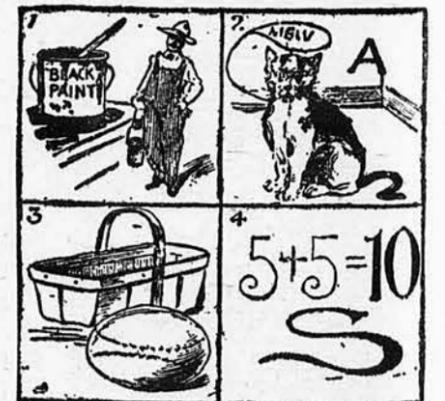
One day papa was digging a post hole in the pasture. Beauty watched him closely and when he went away she came up to the post hole, got down on her knees and put her nose into the hole.

Another time papa had an orange in his pocket. The coat was on the ground. Beauty put her nose into the pocket where the orange was, rolled it out onto the ground and took a bite of the peeling.

Gladys Eberhart.
Ottawa, Kan.

Spring Weather and Games

With the approach of fine weather, the great outdoors is calling to boys and girls to enjoy open air sports. Four games are represented in this puzzle. If you can guess them send your answers to the Puzzle Editor, Farmers



Mail and Breeze, Topeka, Kan. There will be a package of postcards for each of the five boys and girls sending the most neatly written correct answers.

The answer to the automobile puzzle of February 2 issue is: 1, Maxwell; 2, Stutz; 3, Overland; 4, King. Prize winners are Floyd Saint, Lyons, Kan.; Freda Carlson, Tecumseh, Kan.; Fred Hunt, Jr., Goodland, Kan.; Howard Elk-ins, Jr., Wakefield, Kan.; William Marten, Wamego, Kan.

An Up-to-Date Excuse

Man—Hey, there, how came you up in my apple tree?
Boy—Please, mister, I just fell out of a flying machine.—American Boy.
Mr. Romanoff no doubt considers himself lucky to be roamin' off to Siberia.

No Mending Needed
You will save money and wife will save stitches if you buy

FITZ OVERALLS

They wear like rawhide. No ripping—No shrinking—Buttons stay on. Made of pure indigo blue denim. Big and roomy. Satisfaction guaranteed. 66 sizes. Special orders to any dealer in 24 hours from
BURNHAM-MUNGER-ROOT
Kansas City, Mo.

The Jordan Valley

In Southeastern Oregon is a beautiful, fertile district that you ought to investigate. Many shrewd farmers are buying there, because their keen business foresight tells them that investment will pay big returns from the natural increase in the value of the land alone, to say nothing of the big crops that they can produce. Prices low; terms easy.
Ask me for authentic information, absolutely free.
You are cordially invited to call at Room 112, Union Pacific Building, to see our excellent and extensive exhibit of products grown in the Union Pacific Country.
R. A. SMITH, Colonization & Industrial Agt.
Union Pacific System
Room 1350, U. P. Bldg., Omaha, Neb.

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Tom McNeal's Review.	A High-Grade Story.
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Sermons from Great Pulpits.	Anecdotes and Clean Fun.
Happenings of Interest.	Puzzles, Riddles, Contests.
News of Moment.	The Best Miscellany.

Capper's Weekly Stands for and Advocates:
The welfare of the American home; 100-cents-on-the-dollar government; better schools and free school books and an education that will fit every child for the business of life; nation-wide prohibition, nation-wide suffrage; an end to fee-grabbing receiverships and the entire fee system; courts and laws as prompt and as impartial as the postoffice; fewer new laws and an honest enforcement of those we have; a permanent peace alliance for the total abolition of war; a square deal to everybody irrespective of condition, race, color or politics.

Fill Out and Mail 20-Day Special Offer Coupon

Arthur Capper, Publisher Capper's Weekly, Topeka, Kansas. M.B.

Dear Sir: I enclose 10c to pay for Capper's Weekly for the term of ten weeks. Send the paper to the following address as per your Special 20-Day Offer:

Name.....
Postoffice.....
R. F. D. Box State

When Choosing an Incubator

There are Many Types and All Have Advantages

BY HUBERT D. WHITE

INCUBATORS generally are classed as "mammoth" machines, and small machines. The mammoth incubators vary in sizes from 1,200 eggs upward as high as 20,000 egg capacity, and sometimes higher. They usually are sectional in construction, heated by hot water, and using one coal burning heater for the source of fuel. Gas or oil is used in some types as fuel. The use of mammoth incubators practically is confined to the larger poultry plants.

The small incubators range in size from 30 or 40 egg capacity up to 200, 300, 400 and even 600 or 800 egg capacity. The machines holding more than 400 eggs or thereabouts frequently are called semi or baby-mammoth sizes because of their relative size. The smaller machines are commonly divided into hot water or hot air types, which refers to the manner in which the egg chamber is heated. The hot water incubators depend upon the principle of radiation to distribute the heat, somewhat on the order of the hot water heating systems in homes. A metal tank or pipe system, usually made of copper, is built in fixed position into the incubator and is filled with water heated by a lamp attached to the machine. The heat radiates to the eggs on the tray in the egg chamber, keeping them at the required temperature during the hatch.

Heating Hot Air Incubators.

In the hot air incubator there are some variations in the exact principle of heating. In some makes warm air is introduced into the egg chamber and diffuses over the eggs; in others the heated air does not enter directly into the egg chamber but is confined first to a metal tank from which heat radiates to the eggs. In still others a combination is employed.

There are several modifications of these heating principles in the different kinds of dependable incubators sold on the market. The advantages claimed by every manufacturer carefully are described in their catalogs, and it is always best to thoroughly study their literature to be familiar with them, to make an intelligent choice.

The source of heat commonly is an oil-burning lamp. Some electric incubators are on the market and give good satisfaction, but they are less common, and can be used only where electricity is available.

Manufacturers locate their lamps at various places in their incubators. Some attach the lamp and heater on the side of the machine, some locate it under the machine near one end, and others place it in the center beneath the egg chamber. There are reasons for doing so in each case according to the distinctive type of incubator.

Machines Have Various Sizes.

You will find both round and rectangular shapes in different incubators sold today, each distinctive in design and obtainable in various sizes. Some machines are all metal, some are metal covered over wood, and others are all wood in construction. Some also are made of material similar to the pulp wall board used as a substitute for lath and plaster in building construction.

Most incubators are completely assembled before leaving the factory with the exception of the legs, the lamp bracket and lamp, and the regulator. These are carefully placed inside the machine, and the whole carefully crated for shipment. It is possible, also, to buy the plans and separate parts, and build your own incubator if you choose. Such opportunities are offered and appeal to many who like to do such work. Then some incubators are assembled only in part, shipped crated to the customer knocked down flat, and have to be put together before they can be used.

Incubators are sold everywhere in the country thru local dealers or direct by mail, according to the selling plan of the manufacturer. Inquiry made of any of the responsible advertisers will give you explicit information on their product and their methods.

Next to your choice of a good hatcher, the decision as to the best size suitable for your needs is of greatest importance. Do not make the mistake of buying too large an incubator for your needs. It is generally conceded that two smaller

machines, for instance of 150-egg capacity each, are preferable to one 300-filled with eggs not more than a week to 10 days old when put into the machine. The fresher the eggs the more even and satisfactory will be the hatch. Determine the egg capacity you need by the egg supply you will have and equip yourself accordingly.

And when you buy be sure to order early. The manufacturers of good incubators are preparing for a big demand. You may rightly expect prompt attention to your order, but delays by freight or by express cannot be helped in many cases.

Poultry Must be Protected

In the fall of 1916 we had quite a loss from roup among the flock. The disturbance was brought on by delay in moving the young fowls to their winter quarters. This chore was not attended to until cold winter weather had come. The consequences were a severe siege of colds and roup. I tried several remedies that were recommended very highly, separated the sick birds from the rest of the flock, used disinfectants, etc. But there seemed to be no cure after they once contracted a severe case of the disease. The only apparent means of stopping the loss was in giving increased attention and care to the main flock and using means of prevention rather than depending on a cure. I cleaned the building thoroly, white-washed the interior, and fed preventive remedies in their feed. All sick birds, which were apparently beyond recovery, were dispatched with the ax, and all carcasses burned. By this way of dealing with the trouble, the disease was soon checked.

I find that a good whitewash to which has been added a small quantity of crude carbolic acid, or stock dip, also is effective in ridding the building of mites and other vermin. I use the mixture when cleaning and getting the coops ready for business in the beginning of the hatching season. I also find that kerosene is quite effective in ridding the coops, roosts, and nests of mites. I have the roosts and nests so constructed as to make it an easy job to carry them outside when cleaning and whitewashing the interior.

One essential to the business that concerns me at this time is the lack of sufficient housing room and protection from extremely cold weather. The flock is fairly well housed and protected from any reasonable degree of cold but when the thermometer registers 15 or 20 degrees below zero, the birds suffer, judged by the appearance of the frosted combs. I am looking forward to the time when I can put up a house that will provide adequate room and protection.

Fred B. Lee.

Easy to Clean This House

We erected a new poultry house recently and in putting in the roosts we carried out a plan that has many advantages over the roosts one sees in the average poultry house. The perches are all on a level, all are movable, and this makes the house easy to clean. Our poultry house is 9 by 20 feet in size. Two cedar posts were set in the ground at each end making them about 16 feet apart the long way, and 5 feet in width. A 1 by 8-inch board was nailed to the tops of each two posts, which are 32 inches out of the ground. Notches were cut in the upper edges of these boards about 12 inches apart. Perches were made of 2 by 2s and rounded off. These are simply laid across the notched boards with ends fitting into the notches. They may be taken out in a moment when cleaning the house. Being level the chickens never crowd as is the case when some roosts are higher than others. It is a good plan to leave space all around roosts for convenience in catching birds at night.

Charles Lederer, Sr.

Manure thrown out into the yard and exposed to heavy rains loses a part of its most valuable fertilizing elements.

Are we getting ready for the new day of government owned and controlled utilities?



What Would You Play Tonight?

"Swanee River?" "Turkey in the Straw?" Old tunes for old friends! Or would it be "Over There" and "Missouri Waltz"—the latest "hits" for the young folks? The Gulbransen plays anything and entertains them all.

Pronounced Gul-BRAN-sen

GULBRANSEN

Player-Piano

You, yourself, can play it beautifully.

There is no other Player Piano just like the Gulbransen. It pedals so easily a baby actually can play it. That is why we have the baby trademark.

Put on a music roll, touch the pedals, and it starts immediately. The tone is wonderfully sweet. An extra touch produces great, crashing chords. And the next instant you can play it as softly and delicately as you want to.

Play it by hand, too, if you are a musician. But mighty few musicians play as well by hand as you can play the Gulbransen with the pedals.

Coming — March 4 to 9

The week of March 4 to 9 is "Gulbransen Entertainment Week" all over the country. A local Piano Dealer near you will, that week, give recitals, concerts, teas, smokers, dances, every afternoon and evening, to show what fun you can have with a Gulbransen—how easy it is to play.

You as a reader of this paper, are invited. You assume no obligation by attending. Send us a postal now for the name and address of the Dealer who will give these entertainments. We will also send you our illustrated Catalog, fully describing each model of the Gulbransen.

NATIONALLY PRICED

Gulbransen Player-Pianos are sold at the same prices throughout the U. S. We mark the true price on each instrument before it leaves the factory. The four models are priced as follows:

"White House" Model	525
"Suburban" Model	395
"Country Seat" Model	475
"Town House" Model	430

GULBRANSEN-DICKINSON CO.

808 N. Sawyer Ave. 248 CHICAGO



Cut this ad out and save it.

Cotton Seed Meal and Cracked Cake

—Our Brands—

JAY 36% Protein	DOVE 38½% Protein	OWL 41% Protein	LONE STAR 43% Protein
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PEANUT MEAL

B. B. Brand
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WRITE FOR PRICES—COME TO HEADQUARTERS.

F. W. BRODE & CO., MEMPHIS, TENNESSEE

Established 1875. Incorporated 1915.

Distributors for Over 40 Years.

Branch Office, Dallas, Tex.

Our Brands Are Standard—We Take Pride in Them.

\$100.00 IN GOLD GIVEN

How Many Words Can You Make

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

OUR OFFER

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

CAPPER CONTEST CLUB, 630 Capper Building, TOPEKA, KANSAS

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M O F I A E B L
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SOFT-HEAT TUBELESS

Marvelous New Porter Incubator Creates Moist, Soft Hatching Warmth like that of the Hen—Maintains Uniform Temperature Over All the Eggs. Big Advance in Artificial Incubation.

We want you to know about this wonderful machine. Designed and built by original inventors of center-heat hatching. Lid's complete radiator plate. Combination hot water and warm air heat. Automatic control of moisture, heat and ventilation. Less responsibility on the user. Nothing like it ever before made. A postal today brings you our

Big, New FREE Book

Explains the common sense principles and 26 superior features—only one filling of tank and less than gallon oil—no gas or bad odors—eggs turned without removing tray—no hydrometer, etc.—No trouble or worry—more and better chicks. Don't waste your time and eggs on ordinary hatching. Send at once for our handsome illustrated book—FREE.

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NEW KIND OF INCUBATOR

Requires 3 minutes a day. Saves work, time, money. Built round, like hen's nest. No cold corners. One gallon of oil, one filling of lamp to a hatch. Wonderful built-in moisture attachment and complete circuit radiators mean even heat, moist and mild always. Many other features that save work, time and money fully described in new FREE book—write postal for your copy NOW. Radio-Round Incubator Co., 107 Roger St. Wayne Neb.

Sell More Poultry

Help feed the world and make more money for yourself with time-tested **SUCCESSFUL** Incubators and Brooders. 25 years' experience. Cabinet-made—scientifically ventilated. Hot water heating plant. Write for Free Catalog—ask about poultry and eggs, and "Successful" Grain Sprouters. Famous booklet, "Proper Care and Feeding of Chicks, Ducks and Turkeys," 18 cents. J. S. Silvest, President and General Manager
DES MOINES INCUBATOR CO. 345 Second St., Des Moines, Ia.

Make Some of This \$600,000,000

HOOVER, Chief of U. S. Food Bureau, and the Secretary of Agriculture, call on you farmers and poultry raisers to raise \$600,000,000 more of poultry this year than last. To do so is a patriotic duty—a profit-making work. To do so you must double—treble—quadruple your flocks. To do that the easiest, quickest, most economical way you need a 1918

X-RAY Incubator

Sent Express Prepaid to Practically All Points. Combines 20 Exclusive X-Ray Features. Completely hatches on only one filling oil during entire hatch. Duplex Central Heating Plant—directly underneath, furnishes natural, moist Mother Hen Heat. X-Ray Automatic Trip regulates the flame—no chilled eggs—no overheated sides. Read all about its 20 remarkable hatch-increasing, labor, time and money-saving features in our Free 1918 Book. A beautiful book packed with facts that will help everyone add to his income—to add to his knowledge of real, genuine incubator values—to know positively what to expect in an incubator. It tells all the facts about 1918 X-Ray Incubators and Brooders. Letters from a few hundreds of the thousands who are using them. Facts that will help you to make more money with less work from poultry raising. Send us your name and address today on the coupon or post card.



X-Ray Incubator Co. Department 47B Des Moines Iowa
Send me at once Free Copy of your 1918 X-Ray Book.
Name _____
St. or R. R. No. _____
City _____
State _____

Mothers are Helping Daughters

BY BERTHA G. SCHMIDT
Secretary

"A mother-daughter partnership for profit and pleasure." Doesn't that line at the top of the Capper Poultry club letterhead describe the club adequately? It's an excellent thing for a girl to have the full support of her mother in the poultry club work as in everything else. There's nothing that pleases me more than the friendly letters which come to my desk every now and then from the mothers of poultry club girls.

The mother partnership of the club is going to receive even greater emphasis during 1918 than during the last year. For this reason the contest directors have increased the number of prizes for the mothers. To the mothers of the 14 girls who win the first 14 prizes, these awards will be given: First, \$10; second, \$5; third, \$3; fourth, \$2; 10 prizes of \$1 each. Girls should urge their mothers to attend the county meetings and to take an active part in the programs.

"We are boosting the club all we can," wrote Mrs. John Brun of Atchison county. "Lillian called a little



She's Serving Uncle Sam.

friend of hers over the phone and I think she will send her application soon. I hope the club will fill up fast. We always read yours and Mr. Case's articles with great interest."

Mrs. Weaver, Mable's mother, and Mrs. Bailey, Ella's mother, are also working for new members in Atchison county and assure me of their interest in the club, in frequent letters. From down in Crawford county come letters every now and then from Letha Emery's mother, showing that she is just as eager for the success of the county as the girls. "We will try to see those two girls as soon as possible and have them send their applications in if they wish to join the club," Mrs. Emery wrote.

In many counties mothers are helping their daughters keep records. This has made continuance in the contest possible for several girls whose hard studies would otherwise have necessitated their giving up the work.

But the Capper Poultry club for 1918 has become more than a mother-daughter partnership for profit and pleasure. It has become a mother-daughter patriotic organization. If the United States and the allies are to win the war we must produce more food as well as send soldiers to the battle front.

One hundred hens on every farm, 100 eggs to every hen," is the slogan adopted by some of the government poultrymen, according to a notice sent out by the United States Food Administration at Washington. "The average size of the farm flock in the United States is only 40 hens," the Food Administration bulletin continues. "It is estimated that an average of 100 hens would increase the poultry supply

6,500,000 pounds this coming year. Some farms can have several hundred while others should keep less. A pound of poultry meat can be produced more quickly and with less cost for feed than any other meat. The average chick will increase its weight from 20 to 25 times or more in the first 12 weeks. Can you beat it with hogs, or cattle or sheep? Do you wonder that the government is urging maximum poultry production?

Every poultry club member is a real patriot. Helping to increase food production in the present crisis is one way in which farm girls can serve Uncle Sam. Girls and women all over the country are giving up many pleasures in order that they may work in Red Cross units and other patriotic organizations.

No poultry club member should think that she is doing enough if she is raising chickens herself but she should urge her friends to increase the food production also. I hope to see every county in Kansas have a complete membership of 10 girls in the Capper Poultry club. Notices in the county papers will help you to line up new members.

Lillian Brun of Atchison county and Clara Mae Carter of Osage county have the distinction of being the first girls to send their entry blanks, farm flock counts and breed club dues for the new club. Many others have come since their arrived two weeks ago.

Brief Notes from Letters.

Thanks for the poultry bulletins you sent me. They are very useful.—Mabel Peterson, McPherson county.

I have a new club member who is a fine girl. I am sending her application and hope it is not too late.—Effie Merritt, Cloud county.

I received the poultry club catalog and have read it thru. You certainly have a businesslike way of sending out advertisements.—Mildred Gardiner, Ottawa county.

Altho I do not know the editor of our county paper, I have written to him and asked him to have a write-up about the Capper Poultry club. I am going to try my best to have our county full soon.—Lenore Rosiska, Clay county.

I received the red ribbon at the poultry show. There were more than 175 Barred Rocks entered and I think I did well to receive \$2.85 in cash and 50 cents in poultry food. I am proud of my pen.—Catherine Peltier, Cloud county.

Success With an Incubator

After several years' experience in hatching chickens in an incubator and raising them in brooders, I feel that my way of doing may be of some help to the beginner, or to those who have not as yet been able to successfully raise the artificially hatched chicks.

The first thing to do is to sterilize your incubator—if it has ever been used before. Wash out with water with a few drops of carbolic acid added. I sometimes burn sulfur on a few coals, shutting up the machine tight. Then put the hot water in the tank if it is a hot water incubator, shaking the machine to be sure to get all the air out of the pipes. Fill the lamp, using the higher grade of oil, and trim the wick. Keep up a good, strong flame. Clean the egg trays and place them on top of the incubator.

While the incubator is heating up go over your eggs carefully, selecting those of uniform size, then fill the trays that previously have been placed on top of the incubator. Cover the eggs with a warm covering and await the heating up of the machine. When the temperature is running steadily around 103 degrees put the eggs in the incubator, placing the thermometer on the eggs in the tray nearest the lamp. Close the incubator and keep the lamp flame well up until the temperature is again 103 degrees. The temperature should be

The Capper Poultry Club

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

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

Signed _____ Age _____

Approved _____ Mother or Guardian

R. R. _____ Postoffice _____ Date _____

Age Limit 10 to 18.

Stop Hatching Weak Chicks

With Cheap Incubators

Remember, it is not how many you hatch that counts, but how many you raise. A Queen costs but little more, and the extra chicks that live and grow soon pay the difference.



Queen Incubators

Hatch Chicks That Live and Grow

Built of genuine California Redwood. Redwood does not absorb the odor from the hatching eggs. Cheaper woods, and postboard lining in iron and tin machines, retain the odors to weaken and kill the hatching chicks. The Queen is accurately regulated—taking care of temperature variation of 70 degrees without danger. Not cheap, but cheap in the long run. Catalog free. Queen Incubator Co. Lincoln, Nebr.

Make Money SURE

Don't Experiment

War has made poultry raising more profitable than ever before. The demand for chickens is excessive—greater than the supply. Do your share to meet it. It's no time for experiments. Be sure. Sure Hatch has been the great, dependable, money-making information. Tells how to secure cheap poultry incubator for 20 yrs. Nearly 800,000 pleased people own and make big profits with Sure Hatch. Find Out Today About

SURE HATCH

Sure Hatch chicks are strong, sturdy and healthy, and Sure Hatch Fresh Air Colony Brooders will raise all of them. The hen can't hatch better ones, nor anywhere near as many, nor raise them any better than this wonderful new brooder. Our Big Book FREE! It costs just two cents postage to write us for our big catalogue and Poultry Book. Hundreds of pictures, valuable money-making information. Tells how to secure cheap poultry feed. Get this book sure—today. It means money for you. Sure Hatch Co. Box 14 Fremont, Nebr.

Poultry Book Latest and best yet! 144 hatching, rearing, feeding and disease information. Describes busy Poultry Farm handling 58 pure-bred varieties. Tells how to choose fowls, eggs, incubators, sprouters. This book worth dollars mailed for 10 cents. Berry's Poultry Farm, Box 37, Clarinda, Iowa

62 BREEDS, Pure-bred Chickens, Turkeys, Ducks, Geese, Turkeys, Hardy northern raised, vigorous, beautiful, Fowls, eggs, incubators, at low prices. America's Poultry Farm; 24 years exp. Large fine Annual Poultry Book and Catalog FREE. F. A. NEUBERT, Box 602 Mankato, Minn.

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Capper Poultry Club

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

First Annual Offering of PUREBRED POULTRY

PLYMOUTH ROCKS		Chicks	Pullets
Barred Rocks	.....	41	15
White Rocks	.....	15	2
Buff Rocks	.....	6	7
Marie Riggs, Breed Club Secy., Banner, Kan.			
RHODE ISLANDS			
Rose Comb Reds	.....	49	17
Single Comb Reds	.....	11	5
Rose Comb Whites	.....	8	..
Grace Young, Breed Club Secy., R. 2, Leavenworth, Kan.			
WYANDOTES			
White Wyandottes	.....	39	1
Silver Wyandottes	.....	8	..
Marie Hiatt, Breed Club Secy., R. 1, Colony, Kan.			
ORPINGTONS			
Buff Orpingtons	.....	11	..
White Orpingtons	.....	10	..
Lila Bradley, Breed Club Secy., R. 3, Le Roy, Kan.			
LEGHORNS			
Single Comb White	.....	41	13
Single Comb Brown	.....	4	8
Rose Comb Brown	.....	4	..
Rose Taton, Breed Club Secy., Satanta, Kan.			
WHITE LANGSHANS			
7 cockerels			
Thelma Martin, Breed Club Secy., R. 1, Welda, Kan.			
BUTTERCUPS			
4 cockerels, 2 pullets			
Helen Hosford, R. 1, Pittsburg, Kan.			
ANCONAS			
6 cockerels			
Estella Chaffee, Hamlin, Kan.			

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

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

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

Capper Poultry Club

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

kept at from 102 to 103 degrees the first week, 103 degrees the second week and from 103 to 105 degrees the third week.

The eggs should not be turned until 36 hours after being placed in the incubator, but after that twice daily. Every egg should be marked on one side. Some are removed from the tray, and then the others are rolled gently until all are turned every time, the marked side up in the evening and the plain side up in the morning is a good rule. After turning the eggs on the tray, turn and replace those that were removed.

If the incubator room is likely to get chilly during the night, it is well to put an old comfort or quilt over the machine.

A day or so before the eggs are expected to hatch, a small dish of warm water may be placed in the incubator for a while to insure extra moisture, if the weather is very dry.

On the 19th day close the incubator, keeping the temperature right up to 104 degrees, and do not open it until the hatch is over, which should be in about 48 hours.

When there is an inside glass door, the outside door can be let down, and at night a light is placed where the chicks can see it and come forward to the light and drop down to the nursery underneath the tray. After the hatch is over remove the trays, burn all shells and unhatched eggs, kill cripples, if any, shut up the glass door, leaving a small crack to give the chicks plenty of air and they will straighten up and get strong for their removal to the brooder later on. After this is done, get the brooder heated up, which previously has been made sanitary for the reception of the chicks. Keep a steady lamp flame until the temperature reaches 96 degrees. Place papers on the brooder floor and cover with barn chaff. When this becomes nice and warm remove the chicks from the incubator to the brooder, watching that no weaklings or cripples are put in.

When they have become used to their new home, give them some warm water, which has been colored pink with a tiny bit of permanganate of potassium. This water prepares the chicks against future ills. During this time the chicks have been picking at the chaff, so a little sand is given them as the first course in their first meal. When chicks are about 60 or 70 hours old, not sooner, give them a little commercial chick feed. Later on a little dry bran or bread crumbs may be given for a change. Feed five or six times a day until the chicks are a week old, then change to three feeds a day.

The permanganate of potassium is given in the water every day for a week, then three or four times a week thereafter. Sweet milk is excellent for chicks and should be given every day.

The brooder should be kept in a warm brooder house. I use a small stove in my brooder house, with just enough fire to take off the chill. When a week old, I let the chicks run out on the chaff covered floor.

There is no reason why one should not raise 90 per cent of the chicks hatched if these simple rules are followed. They must be kept clean, warm and dry, given plenty of water, and fed regularly, but not too much at a time. I always have used a hot air brooder, but this season I am going to try one of the round hovers.

Mrs. P. A. Pettis.

Wathena, Kan.

To Win With Poultry

As a general proposition, fowls that are bred to conform closely to the requirements of the standard for shape, and those that are nearest to the standard weights, are the ones that will give the best results in breeding for production. There was a time when I was inclined to believe that it would never be possible to produce hens of any variety that would combine both exhibition and heavy laying qualities, but I no longer feel that way. During the last winter I saw in the shows I attended so many blue ribbon hens that had been trapped and had excellent egg records to their credit that there is no longer any doubt about some of the breeders being able to produce heavy layers that have the quality to win. And to be able to win in good competition they must not only have plumage that is close to what the standard demands in color and markings, but also must conform closely to standard shape.

The poultry breeder to be successful in selling his stock, and eggs for hatching therefrom, must have birds that are pleasing to the eye as well as being producers. Birds of any variety when bred to standard requirements are pleasing to the eye. A flock of any variety of standard poultry that shows health and vigor and runs uniform in shape and color will attract the attention of almost any person.

At the Kansas City Poultry show in January everyone marveled at the beauty of the White Plymouth Rocks. Perhaps the feature of the entire show was the exhibit of 36 White Plymouth Rocks made by Dr. L. E. LeGear of St. Louis, Mo. Any breeder who takes the pains that Dr. LeGear did to wash and otherwise condition 36 birds of white plumage and show them to the general public in as near a perfect condition as possible is doing something to advance the interest in the breeding of better poultry.

In exhibiting poultry it pays to show the birds in the best possible condition. This not only adds to the interest taken by the visitors to the show, but the ex-



First Prize White Plymouth Rock Cock at Kansas City.

hibitor profits by the winnings he makes and from the sales that result. I am sure Dr. LeGear will agree with me on this point since after going to the trouble that he did to show his standard bred White Plymouth Rocks in such excellent condition he won almost all the prizes for which he competed, his birds being awarded first, second, third and fourth on cocks; first, second, third and fourth on hens; first, second and fifth on cockerels; first and fourth on pullets; first and second on old pens, and first and second on young pens. They also won the Kansas City cup, a solid silver cup valued at \$200, offered on the best cockerel in the entire show, and the Convention Hall cup, a very large cup 29 inches tall and 30 inches in circumference, valued at \$200, offered on the best pullet in the entire show.

Such breeders and exhibitors as Dr. LeGear set an excellent example for other breeders to follow, and show by their works that it pays to do things well. The more nearly perfect specimens of any variety of standard fowl that can be shown to the general public the greater will be the interest in the production of the best quality in poultry.

Wonderful Egg Producer

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. A dollar's worth of "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, 4582 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" tonic for \$1.00 (prepaid). So confident is Mr. Reefer of the results that a million-dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" cost you nothing. Send a dollar today or ask Mr. Reefer for his Free Poultry book that tells the experience of a man who has made a fortune out of poultry.—Advertisement.

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IRONCLAD INCUBATOR COMPANY, Box 111 Racine, Wis.

"WHY CHICKS DIE IN THE SHELL"

We want to tell you how to prevent chicks from dying in the shell just at hatching time, how to save them from White Diarrhoea or Bowel Trouble; how to build the best Home Made Brooder in the world from an ordinary box or change your old one. Above information absolutely FREE, for names of 5 or 6 of your friends who use incubators. Send Names Today. RAISALL REMEDY CO., Box 65, BLACKWELL, OKLAHOMA.

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Freight Prepaid

East of Rockies—allowed towards Express and to points beyond. I ship quick from Buffalo, Minneapolis, Kansas City or Racine. Used by Uncle Sam and Agri' Colleges. With this Guaranteed Hatching Outfit and my Guide Book for setting up and operating you can make a big income.—And my Special Offers provide ways for you to make extra money. Save time—Order now, or write today for my Free Catalog, "Hatching Facts". It tells all. Jim Rohan, Pres. Belle City Incubator Co., Box 21, Racine, Wis.

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House Dress Pattern FREE!

This pretty, new one-piece house dress with sleeve in either of two lengths is the most practical and attractive house dress that can be worn this season. This style is simple, attractive and comfortable. The right front overlaps the left at the closing. The sleeve may be finished in wrist or elbow length. The fullness at the waistline is to be confined by a belt or to be gathered with a casing underneath. Gingham, seersucker, drill, linen, alpaca, chambray, gabardine, flannel, flannelette and serge are all used for this style. The Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6 1/2 yards of 36-inch material for a 36-inch measure about 2 1/2 inch size. The dress measures about 2 1/2 yards at its lower edge.

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Men Mechanically Inclined, Your Services Are Needed.

NEVER before has the demand for Automobile, Tractor, Truck and Aeroplane motor Mechanics been so great. Your service is needed in the Army, driving and repairing Trucks and Ambulances; in the Aeroplane section repairing motors; on our farms using Tractors; besides, remember that this country has 4,000,000 Automobiles. Thousands of mechanics who formerly took care of them are in the Government service. Somebody must take their places. It is up to you to take the places in the garage, etc., of the men that must go. Realizing these conditions I have made preparation to train men to fill these important positions. The demand for men is here. I am ready to train them. If you are in the draft, come here and be trained so that you can give a special service to your Country.

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I have written a catalogue that shows pictures of all departments and describes my school. I want you to have it. It will tell you how I teach the Automobile, Tractor business; open your eyes to the opportunities for splendid positions at good money. This Country must have trained Mechanics. Take advantage of present conditions, write for my free catalogue; it's a trip through the greatest school in the world. Today is the day of opportunities, grasp them.

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THE HOUSEHOLD, Dept. M-7, Topeka, Kansas

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Money from Dairying

Cow Care Before Calving

For calves that are to come this spring care should start at least six or eight weeks before their arrival. Extra feed given to the dam while still carrying her calf is never wasted; instead, it does double duty, for it serves to keep not one animal in good condition, but two—the cow and the calf. A strong, well-conditioned cow, calving in a fair state of flesh, is ready after the birth of her calf to begin or resume a larger production of milk than she would if in poor physical condition. The calf, too, from a cow in good condition is ready to start its life with better chances for a vigorous, healthy growth.

Pregnant cows should have an abundance of palatable and succulent feed with which to build up their bodies into a healthy, thrifty condition. Use care not to give such cows too much grain, especially corn. Those thin in flesh may be given a little corn, not enough to crowd them but to flesh them up gradually. For a few weeks before calving the digestive system of the cow should be cooled out and rested, and too much corn would defeat the objects of this plan. The amount of grain that can be fed safely varies with individual cows. For this reason they should be

watched carefully and if found to be fattening too rapidly, should have their grain rations reduced.

For spring feeding an admirable ration for the cow about to freshen perhaps about the time pasturage is available would be from 20 to 25 pounds of silage daily, clover or alfalfa at will, and a grain mixture of 3 parts ground oats, 2 parts bran and 1 part oilmeal. Avoid feeding timothy hay and cottonseed meal. These feeds are constipating; laxative feeds are needed at this time. Whatever ration is fed it is well to reduce it somewhat just prior to the time the cow freshens, so as to decrease the danger from milk fever and other calving troubles.

Age Limits With Cows

Cows usually reach their maximum production between the ages of 6 and 8 years, after which time the annual production begins to decrease. When the heifer calves from the best cows only are raised, one-fifth to one-fourth of the cows in the herd may be replaced by the heifers every year; in this way, or when purchase is the method employed in replacing cows, few need be kept beyond the age of 8 years.

Cows are less profitable milk pro-

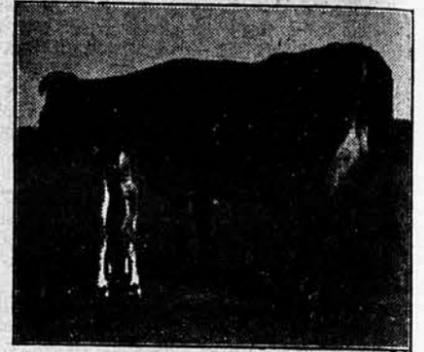
ducers during their first lactation period than when they become mature, since part of the feed is used for growth. The loss occasioned by this additional cost of milk production usually is offset by the better prices which can be secured for the mature cows when they are sold before passing their prime. Good cows may be profitable producers up to the age of 15 years, but comparatively few are kept to that age except for breeding purposes. After cows reach the age of 8 years, the uncertainty as to how long they will continue to be profitable on account of failure to breed and the lessened resistance to ailments becomes more marked. The uncertainty probably is greater where forced feeding in record making is practiced.

When the Calf Comes

BY FRANK M. CHASE

To provide a safe start in life for the dairy calf, as well as to start the cow on her year's milk production properly, it is advisable to give the cow some extra care at calving time. Unless she calves in very warm weather, in the pasture, a clean, well-bedded boxstall is the best place for this event to take place. Disinfect the stall a few days before the cow is expected to calve and place her in it. If her bowels are not moving freely give her a dose of from $\frac{1}{4}$ to 1 pound of epsom salts or a quart of raw linseed oil. A grain ration of 2 parts bran and 1 part oilmeal is excellent to aid in keeping the digestive system in good working order.

Properties that stimulate the calf's stomach and other digestive organs to action are contained in the first milk of the cow, and the calf should have it as soon after it is born as possible. Sometimes the calf is weak when born, and in special need of this colostrum. For these reasons it is well to let the calf remain with the dam for a day or so after it is born. Another advantage is that all but exceptional cows will lick their calves dry immediately after birth. When the cow does not give her calf sufficient attention, or the barn air is very cold or the calf very weak, it is a



The Newest Member of the Herd.

good plan to wipe the young animal dry with a blanket and perhaps place it by a fire in a warm room. It is very important, however, to get some of the colostrum into the stomach of the calf before removing it from the cow.

Exactly how long the new-born calf should be allowed to remain with the cow is a matter of unlimited debate, but except in the cases of weak calves or those which do not gain strength rapidly, the calf may be safely taken from the cow at any time after it is 48 hours old. Many successful dairymen do not leave calves with the dams even as long as two days.

Just after calving the cow should be the object of intelligent care, lest there be permanent injury to her health and a serious reduction in her normal milk production. For a few days after parturition the cow should receive lukewarm drinking water, particularly in cold weather when there are unusual demands upon her energy to keep her body warm. Bran, particularly when fed as a mash, oilmeal and ground oats are very good feeds for her at this time. For roughage alfalfa and clover hay are excellent. Small amounts of silage also may be fed with safety.

About three days after calving the cow may be placed on dry and more solid feed. Strict care should be used, however, in putting her on full feed. Parturition temporarily weakens the digestive system, so heavy feeding too soon after calving is likely to result in indigestion or bloat. The first 30 days after calving is a critical period in the production of the cow. If cared for properly during this time she may be brought to her greatest possible flow of milk; poor care, on the other hand, may effect a diminution in the milk flow lasting thru the entire lactation period.

Suitable feeds are essential if the cow is to come quickly to maximum production. Beginning on the fourth day with 5 pounds of grain daily, sufficient for the average cow, the ration should be increased slowly; $\frac{1}{2}$ pound every alternate day is a good rate. Increase the grain ration in this way so long as the cow continues to increase profitably in milk production. When she ceases to respond to further increases in feed, lessen the ration gradually at the same rate. As a rule it will be found that while this lessening of the feed is in progress a point will be found where she will further increase the milk yield. The amount of grain given on the day on which the milk flow begins to decline practically determines the amount of grain she should receive. Much less feed than this amount will not result in her best work and additional feed may be wasted and diminish the milk flow besides.

Warming Water

Dairy cows in milk require a large amount of water, 70 to 100 pounds being consumed daily under ordinary conditions. In winter there will be an increased consumption of water if it is warmed so that it is not colder than that coming from a deep well. Drinking troughs and tanks should be cleaned frequently to avoid, so far as possible, the growth and spread of diseases.

Shipping space to Europe is so scarce that thousands of tons of urgently needed war supplies are held on American docks awaiting transportation. Even though willing to pay double or treble rates, shippers cannot get their goods through.

Separators Given Priority Over War Materials

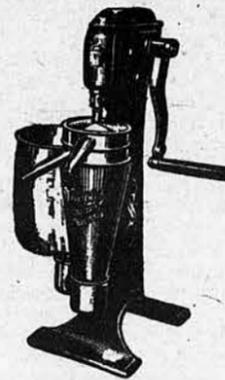
A FEW weeks ago, under authority of the French government, a shipment of five hundred Sharples Suction-feed Separators was promptly forwarded from here to France. The very next week another order for five hundred Sharples Suction-feed Separators was received and forwarded under similar conditions.

Both shipments were given precedence en route. Munitions might wait. Even food products might wait. But this machine that saves butter fat wasted by every other separator or method, was placed in the very vanguard of life's necessities.

It has been said that not munitions, not even money will win the war—but fats.

The English Government recognizes this. On December 22nd, we received the largest order for Sharples Suction-feed Separators our agents there have ever given us. Immediate shipping space was provided by the English Government.

And no wonder they are achieving first place—not merely first place among separators but among economic inventions that have made America great.



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The One and Only Separator

- that will skim clean at widely varying speeds.
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- with just one piece in bowl—no discs, easiest to clean.
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Sharples is the only separator that automatically and fully prevents cream losses. No matter whether turned fast or slow, the Sharples Suction-feed principle insures clean skimming. Not less than ten pounds of butter per year for every cow is the average saving over any other separator. No wonder they want them in Europe!

See the nearest Sharples dealer at once. He probably advertises in your local paper. If you do not know his name, ask us and we will send it, together with a copy of our 50-page, old-time Song Book in appreciation of your interest. Address Dept. 15 for this information and catalog.

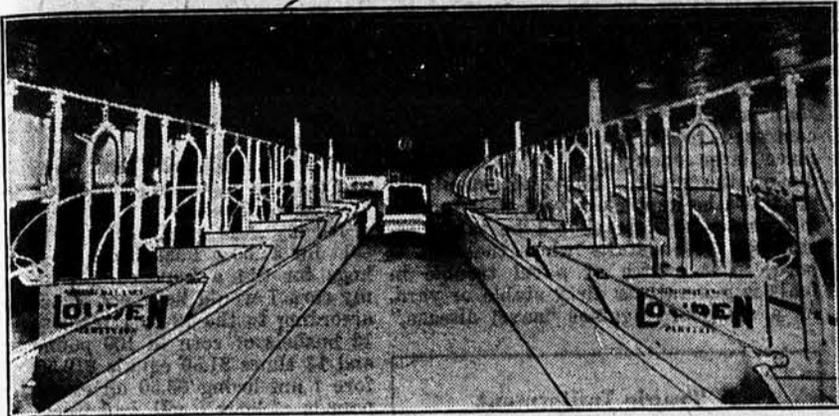
THE SHARPLES SEPARATOR Co., West Chester, Pa.

Sharples Milkers—used on half a million cows daily

BRANCHES: CHICAGO SAN FRANCISCO TORONTO

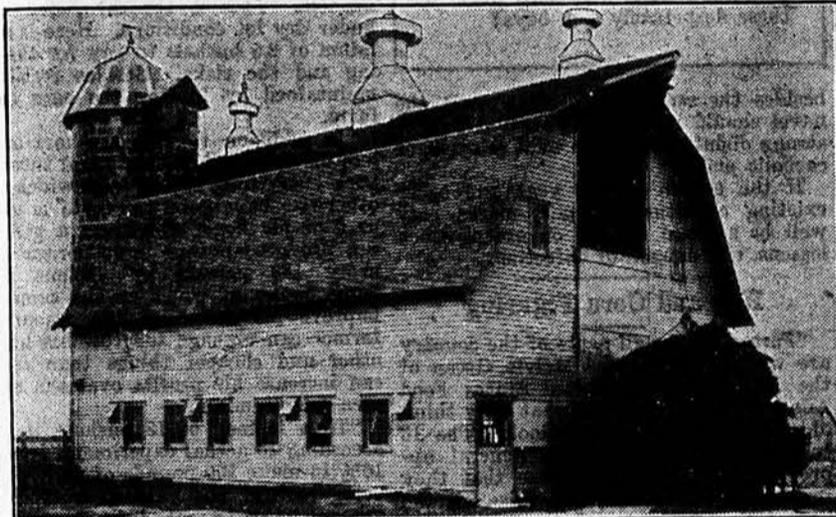
TC-1

Saving Work With the Cows



THE VALUE of good equipment for dairying never was appreciated so much as now. There is a three-fold reason for this—high priced labor, high priced feeds, and high priced dairy products. Any mechanical contrivance that saves labor is in demand nowadays, and if this same equipment can be made to save time and feed in the choring, all the better. In the case of the third named item, the product, there is no need to argue in favor of careful, efficient methods of production when butterfat is worth 50 cents a pound.

The pictures show inside and outside views of a good dairy barn. It is concrete floored thruout, has steel mangers and stanchions, carrier and track for feed and litter, hay fork, and a modern system of barn ventilation. A tile block silo built against the rear of the barn makes feeding handy. The feed carrier track is built right to its door and silage may be thrown directly into the feed car. There is a cemented cistern outside the barn into which the liquid manure drains. In its equipment and plan of arrangement it would be difficult to find a more complete dairy barn than this one.



Dairy Records at Abilene

Some good records are being made by the Dickinson County Cow Testing association. Here are the records for January, for cows producing more than 40 pounds of butterfat, as reported by C. A. Herrick, the official tester, and A. H. Diehl, the secretary:

Owner of Cow.	Pounds Milk.	Per Cent Fat.	Pounds Butterfat.
J. A. Engle.....H.	1,290	3.4	43.9
J. A. Engle.....H.	1,482	3.1	45.9
J. A. Engle.....H.	1,197	3.9	46.7
J. M. Gish.....H.	780	5.2	40.6
A. H. Diehl.....S.H.	939	5.3	49.7
S. H. Lenhart & Son.....H.	750	5.4	40.5
George Lenhart.....H.	1,587	3.7	58.7
George Lenhart.....H.	1,695	4.0	67.8
George Lenhart.....H.	1,269	4.0	50.8
George Lenhart.....H.	1,857	3.6	65.9
A. B. Wilcox.....H.	1,491	3.2	47.7
A. B. Wilcox.....H.	1,419	3.0	42.6
A. B. Wilcox.....H.	1,149	4.1	46.7
A. B. Wilcox.....H.	1,713	3.6	61.7
J. C. Stockard.....S.H.	1,287	4.3	55.3
D. S. Engle & Son, H.	1,581	4.4	69.6
L. L. Engle.....H.	864	4.7	40.6
N. E. Engle.....H.	1,749	5.2	90.9
J. A. Welshar.....H.	1,038	4.8	49.8
J. A. Welshar.....H.	1,500	4.2	63.0
J. A. Welshar.....H.	1,380	3.8	52.4
Hoffman Bros.....H.	711	6.1	43.4

Grooming the Cows

The daily grooming of cows, especially in winter, helps keep the hair and skin soft and in good condition. The handling occasioned by grooming often proves beneficial in making those cows which are very nervous and excitable more gentle. When done properly it also is an aid in the production of clean milk.

Frequency of Milking

Most cows give more milk if milked three or four times a day than if milked but twice. Under ordinary conditions the increased amount of milk does not compensate for the extra labor, unless the cows are giving an unusually large flow. It usually is considered profitable

to milk more than twice a day those cows giving more than 60 pounds daily, since the retention of a large quantity of milk for a period of several hours tends to cause congestion. When cows are being milked in official tests, it is customary to milk three or four times a day at equal intervals.

About the Wheat Growers

I wish to thank Governor Capper for his stand in behalf of the common people, and especially in behalf of the Kansas wheat raiser, for the wheat grower certainly needs a friend at this time. Unless something is done to protect the farmers' elevators in the wheat districts they will be crowded to the wall. And this would be a real calamity. I have sent Hoover a letter giving him some facts that exist here. I wish Hoover could be induced to meet the farmers' elevator men and a delegation of farmers in the wheat belt, so he might get the situation fixed in his mind and be able to meet the opposition with real facts.

I am for Capper for Senator or the next place above, so the farmer can feel sure that he has one man at Washington in whom he believes.

I have two boys in the Pig Club contest this year, one in this state and one in the Missouri Valley contest. In last year's prize, Verne Landreth won seventh prize, producing 1851 pounds of pork. His sow had seven pigs and he sold the seven for \$340. His sow gained \$50 in value also, so that is \$390. This sow goes in to win next year.

St. John, Kan. N. W. Landreth.

While the pigs are suckling, feeding the sow means feeding the pigs,

Medium size with all the dairy quality obtainable marks the good dairy cow.

Three Important Reasons For Buying a NEW DE LAVAL CREAM SEPARATOR At Once

THERE are three very strong reasons for the immediate purchase of an up-to-date De Laval Cream Separator.

In the first place, a new De Laval machine will now save its cost in a few months—in more and better cream and butter and in time saving—at the present very high butter prices and great need of every minute of time.

In the second place, the patriotic duty rests upon every producer of butter-fat to save every ounce of it, and nothing is of greater food value to a nation at war. All European countries are encouraging the sale of the best cream separators in every way possible.

In the third place, railway delays are such that you can't depend upon quick delivery, and if you don't order your De Laval now there is no telling when you can get it. Moreover, the supply of labor and material is uncertain and all last year De Laval deliveries were nearly two months behind.

Again, De Laval prices have advanced very little thus far but must go higher if present industrial conditions continue, let alone become more difficult. Present prices hold good until March 1st only.

There was never a time when the immediate purchase of a latest improved De Laval Cream Separator was more important to everyone separating cream, or when it could less wisely be delayed.



See the nearest De Laval agent at once. Arrange to try a new De Laval machine for your own satisfaction. See for yourself just what it will do for you. If you don't know the nearest agent simply address the nearest General Office.

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



"Good to the Last Drop"

Raise Your Calves on Blatchford's Calf Meal and Sell the Milk

More calves have been raised on Blatchford's Calf Meal than on all other milk substitutes combined.

100 lbs. makes 100 gallons of milk substitute, costing only one-third as much as milk. Prevents scouring and insures the early maturity of sleek, handsome calves.

It is steam-cooked and no trouble to prepare or use. Write for Pamphlet "How to Raise Calves Cheaply and Successfully with Little or No Milk." At dealers, or Blatchford Calf Meal Factory, Dept. 93, Wankegan, Ill.

\$17.95 ON TRIAL American FULLY GUARANTEED CREAM SEPARATOR

A Solid Proposition to send new, well made, easy running, perfect skimming separator for \$17.95. Skims warm or cold milk; heavy or light cream. Different from picture, which shows larger capacity machines. See our plan of MONTHLY PAYMENTS. How sanitary, marvel easily cleaned. Whether dairy is large or small, write for free catalog and monthly payment plan. Western orders filled from western points. AMERICAN SEPARATOR CO. Box 4092 Bainbridge, N. Y.



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I want to put this wonderful convenience in every unsewered home. Does away with the insanitary outhouse and vault. No need to go out in cold or rainy weather.

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Easily set up any place in your home. No plumbing to freeze. Costs little to use. Our wonderful chemical, LYXNITE, dissolves human waste and destroys disease germs and odor.

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WHEN WRITING TO ADVERTISERS MENTION THE MAIL AND BREEZE

The GLEANERS America's Largest and Strongest FARMERS ORGANIZATION

Founded in 1894, now chartered in 12 central states, offers to all actual farmers every form of practical protection and cooperation. No experiments, no theory, but a real practical organization of business farmers, with more than 80,000 members and cash assets of over a MILLION DOLLARS.

JOIN THE GLEANERS—ORGANIZE AN ARBOR IN YOUR NEIGHBORHOOD!

We, the organized Gleaners, invite you to join hands with us in this campaign which will link the farmers interests from coast to coast. Write us today, tell us you want to know more about the Gleaners, we can help you and you can help us! Write

GRANT SLOCUM, Secretary Natl. Gleaners Temple, 1209 Woodward Av., Detroit (We have openings in every state for field workers who devote their entire time to organizing new Gleaner arbors. If interested write!)

Work With Other Breeders

BY H. C. LOOKABAUGH

Mr. Lookabaugh has been a leader among the breeders of the Middle West in urging closer co-operation between farmers. The farmers in the county in which he lives have a Shorthorn Breeders' association that is known all over North America. They have built it up by the helpful co-operation he urges in this article.

If a customer comes to visit you and you have nothing to suit him and he speaks about your neighbor who is breeding the same kind of stock, do not do the way it used to be the custom to do, like this: "Who do you mean, Mr. Brown?" The customer will say, "Yes, I believe that is his name." You look a little mysterious and ask him if he has ever met Mr. Brown. The customer says, "No, why?" The breeder says, "Well, I didn't know, I guess he has some pretty good cattle."

Now he didn't say anything wrong of Mr. Brown, yet he cast the wrong impression. Then the customer asked about Mr. Smith and the breeder said, "Well, Mr. Smith is a nice man but they say his cattle are poor. Now I don't know, I never saw them, but they say they are poor." Neither did the breeder say anything about Mr. Smith that was wrong, yet he cast the wrong impression. Then the customer spoke about Mr. Jones, who lives on the other side of Mr. Brown, and the breeder laughed a little and said, "Well, I don't know much about Mr. Jones but if you wish to go down there I will take you down."

Of course from the insinuation the breeder made of Mr. Jones the customer was ashamed to say that he wished to go down and decided that he had better go home and talk it over with his wife and promised the breeder that he might come back to see him again. But he never came back. This breeder has hurt himself; he has entirely killed the inspiration which was started in the breast of this young customer; he has injured the agricultural interests and the breeding interests as a whole. Do not do like this breeder, but take the new plan. If you do not have what the customer wishes, frankly say that Mr. Brown has a nice bunch of cattle down here and is a good man, too, and that you will take him down and show him Mr. Brown's cattle.

When you get down to Mr. Brown's place have a nice little sociable visit and say to Mr. Brown, "Let's take this new customer to Mr. Smith's and see his cattle, he has a fine herd and I enjoy talking to him so much." You go to Mr. Smith's house for dinner and have a very pleasant visit and after dinner say to Mr. Smith and Mr. Brown, "Let's take the new customer over to see Mr. Jones, I know he will be glad to see the whole bunch."

By the time the new customer is thru visiting with Mr. Jones and he sees that strong bond of fellowship which exists, it makes him wish to become one of them. He goes home with a still stronger inspiration to form a breeders' circle in his community. Then you really have accomplished something. The man not only buys more than he anticipated buying but he also brings a neighbor or two back to buy also, and the good seed has been planted and soon it will be scattered broadcast as that community continues on after the pattern you have set. You know the old saying "Big things are made up of little deeds; great sayings are composed of little words." I remember well a remark that a man made about a mutual friend of ours who had died. It was this: "If every soul to which he has done one kind deed would cast a single blossom, his grave would be covered with a wilderness of bloom."

Care for the Mares

Carelessness and lack of knowledge are responsible for a large number of losses which occur during foaling. This is doubly true because in case of trouble aid must be given quickly and accurately. The loss of foals before weaning has been estimated at from 10 to 25 per cent of the crop, and the greater part of this loss occurs before the foals are 2 weeks old. Much of it can be avoided by attention and care.

Prior to the birth of the foal, mares should have enough of good wholesome food and water; plenty of exercise; clean, light and altogether sanitary quarters along with regular attention directed or given by a man who likes the horses and who looks after this matter, not from a sense of profit and loss alone, but because of human interest and duty.

On the average farm the problem of exercise is not troublesome. The great difficulty is to find help that will handle brood mares carefully. Brood mares may work up to within two or three days of the date of foaling, and be benefited by it. They should be given moderate but steady work. Such mares should not be given work which requires backing heavy loads, or where there is a chance of slipping. But they can and should be worked.

There are many satisfactory rations for brood mares. Among them E. A. Trowbridge of the University of Missouri mentions the following: Oats 4 parts, bran 1 part, mixed clover and timothy hay; oats 2 parts, corn 2 parts, bran 1 part, mixed clover and timothy hay.

Feed for this class of horses should always be of the best quality and of such a composition that it will not cause

digestive trouble. As a general rule mares doing light work should eat approximately 1 pound of hay and 1 pound of grain a day for 1000 pounds live weight. This matter should be governed, however, by the condition of the mares, and they should be gaining as the critical time approaches.

Mares should be given a box stall at least four weeks before they are due to foal, in order that they may become accustomed to it, and may also have a place large enough to be comfortable during the night. The stall should at all times be kept clean and well bedded, but particular care should be taken regarding these details when the foal is born. The source of navel trouble in foals is generally a dirty stable or yard. As a safeguard against "navel disease,"

A Tragic Indictment

The only satisfactory explanation of the atrocious story of the death of the son of the Rev. C. D. Hestwood at Camp Doniphan, namely, that Mr. Hestwood is mistaken in his statements of fact, has not been made and cannot be made. Its dispassionate but pathetic and terrible recital of the truth, makes excuses vain. Not only had the Surgeon General never heard of the case—"Let me have that letter," he said to Senator Chamberlain—and Secretary Baker had never heard of the case, but General Wright, in command of the camp, never heard of the case.

Was there nobody in authority who knew what was being done to these desperately sick boys?

besides the scrupulously clean stall, the navel should be tied and treated with a strong disinfectant, such as a solution of carbolic acid.

If the season of the year and other existing conditions permit, mares may well be allowed to foal on grass, which lessens the danger of infection.

Hog and Corn Figuring

"Farmers from all parts of the country are writing us," states Melvin Green of the Meat Division, United States Food Administration, "telling what they think of the hog production outlook. The 13 to 1 ratio policy receives general approval. Practically all agree that they feel safe to go ahead and raise all the hogs they can, provided they can actually count on getting 13 times the price of a bushel of corn for every 100 pounds of hog they grow.

"The minimum of \$15.50 for the aver-

age of packers' droves in Chicago, which the Food Administration promised to do its best to maintain until further notice, has not been generally so well understood as the 13 to 1 ratio policy. The 13 to 1 ratio price is to apply to pigs farrowed this spring. The \$15.50 price does not pretend to be based on a 13 to 1 ratio. It was intended rather to let farmers know that prices would be kept stable and treacherous market breaks prevented.

"Here is a mistake that many persons are making in their figuring on the hog and corn situation: A man will write, 'I fed my hogs on corn that I could have sold for \$1.50 a bushel and then sold the hogs for \$14 a hundred. If I had sold my corn I would have got \$19.50 because according to the 13 to 1 ratio there were 13 bushels of corn in 100 pounds of hog and 13 times \$1.50 equals \$19.50. Therefore I am losing \$5.50 on every hundred pounds of hogs I sell, and work and risk thrown in.' Now this man is making not merely one mistake in his reckoning. He is making a whole row of mistakes.

"In the first place the finding of the committee of hog experts did not say and did not mean that it takes 13 bushels of corn to make 100 pounds of hog. The 13 to 1 ratio in reality offers a price which puts a substantial premium on hogs over the amount of corn necessary to grow them under average conditions.

"An average of six feeding trials at the Missouri, Nebraska, Iowa and Indiana Experiment stations—reported in Purdue University Extension Bulletin No. 39—gives the amount of corn required to make 100 pounds of pork as 536.2 pounds or slightly less than 10.5 bushels. This is for corn, fed alone, under dry lot conditions. Here is a premium of 2.5 bushels to pay for the feeding and the risks. Besides fertility is maintained by feeding the corn on the farm.

"In addition to this the farmer who lets his hogs follow cattle and turns into pork everything on his farm which would otherwise have gone to waste is getting part of his hogs' weight as a gift. He can produce another large percentage of every 100 pounds by various forage crops, many of which at the same time improve his soil. By the amount the farmer can manage to grow his hogs on other and cheaper things than corn he can increase his profits over the normal corn fed premium.

"Thus instead of 13 bushels, it takes, according to actual experiment, less than 10½ to make 100 pounds of pork, and by using skillful hog raising methods this amount may be cut down a good deal lower yet.

"Here is another point which farmers are apt to overlook. It is only because 82 per cent of the corn crop is fed on the farm and only 18 per cent is put on sale that corn brings the price it does. Just stop and think what would happen to the price of corn if most farmers tried to sell their corn as corn, instead of feeding it. Instead of 18 per cent, or less than one-fifth of the entire crop going on to the market, we would have three or four times the amount that the trade normally takes, flooding the market, and corn would go to low prices. The price of corn depends on the fact that four-fifths of the crop is fed and never reaches the market to break it."

A Case of Poll Evil

I have a mare 6 years old with poll evil. How can I cure it? J. M. D. Norton County.

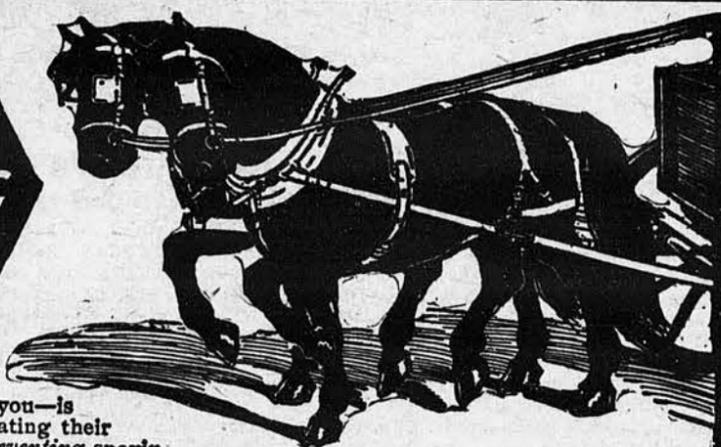
In our experience, poll evil can be treated successfully by surgical means only. The extent of the operation depends on the gravity of the condition. It will require a thoro examination by a competent graduate veterinarian to determine the extent of the disease. The external application of liniments or other agents, or the injection of disinfectants does not give beneficial results so long as there is decayed or dead tissue in the bottom of the wound. It is advisable to have this animal treated by an experienced graduate veterinarian before the disease has advanced too far.

K. S. A. C.

A Larger Legume Acreage?

Reports from over Kansas and from the seed houses indicate that there is an abnormally large demand for seeds of the clovers and of alfalfa. It is probable that the acreage of these crops planted in 1918 will break all records.

KEEP YOUR HORSES IN PRIME WORKING CONDITION



A HORSE in the field—working for you—is worth two in the barn—simply eating their heads off. There is no way of preventing spavin, ringbone, splint or curb from suddenly lamming and laying up your horses—but there is a way of safely and easily treating all these ailments and preventing them from keeping your horses laid up. For over 40 years there has been a reliable remedy that horsemen everywhere have depended on to save them money, time and worry.

KENDALL'S SPAVIN TREATMENT

Known For 40 Years as Kendall's Spavin Cure

has been the trusted remedy of horsemen everywhere. It has not only been saving untold time, work and worry but thousands of dollars' worth of valuable horseflesh and has many times saved horses from death.

Here's a man—Mr. W. T. Campbell, Macadonia, Ky., who not only saves money but actually makes money by using Kendall's Spavin Treatment. He writes: "I have used 2½ bottles of your Spavin Treatment, and have relieved two mules of Bog Spavin. I bought the mules for \$80.00 and can now cash them for \$400.00. Shall never be without your great remedy."

Here's another man who has used Kendall's Spavin Treatment with remarkable success. Mr. Floyd Nelson, Kings Ferry, N. Y., writes: "I have used your Spavin Treatment for the past six years and have made in the neighborhood of \$700.00 buying Spavined horses and treating them. I consider there is nothing equal to it if it is used according to directions."

Never be without a bottle of Kendall's Spavin Treatment. You can never tell when accidents will happen—when this remedy may be worth the price of your best horse. It is better to be prepared.

Don't call your case "hopeless" in the face of above testimony.

Next time you go to town get a couple of bottles from your druggist. The price is uniform, only \$1.10 per bottle, 6 bottles for \$5.50. At the same time ask for our invaluable "Treatise on the Horse," or write to

Dr. B. J. Kendall Co., Enosburg Falls, Vt., U.S.A.

Factors in Corn Growing

BY C. C. CUNNINGHAM

In Central and Western Kansas the annual precipitation rather than the growing season is the limiting factor in growth. In this part of the state the varieties that produce the maximum yields of corn on the average are considerably smaller than those grown in the same latitude in Eastern Kansas where the rainfall is greater. It will be remembered that the annual precipitation varies in Kansas from 40 inches in the extreme eastern part of the state to less than 20 inches next to the Colorado line.

Three varieties of corn—Kansas sunflower, Pride of Saline and Freed's white dent—were grown under comparative conditions in a number of tests in Eastern, in Westcentral and in Western Kansas. The Kansas sunflower is a variety well adapted to Eastern Kansas conditions. The Pride of Saline was developed in Central Kansas and is a superior variety for growing in that part of the state. The Freed's white dent is a variety that has been grown in Western Kansas for more than 20 years. Here are the results:

Average Acre Yield.

Variety.	Days to Mature.	Eastern Kansas.	Westcentral Kansas.	Western Kansas.
Kansas Sunflower...	125	56.1	23.3	16.3
Pride of Saline....	115	60.2	24.5	19.3
Freed's white dent.	105	52.8	32.5	30.3

It will be noted that the larger growing varieties produced best in Eastern Kansas, but that the yields for these varieties decreased in a decidedly greater proportion than for the Freed's, a variety adapted to growing with a limited rainfall.

Another feature brought out in this table that is worthy of note is the capacity of the western grown and developed varieties to produce good yields under Eastern Kansas conditions. This indicates that a variety of corn may be moved to a more favorable environment with good chances of success, but that changing a variety adapted to a congenial environment to one that is less congenial is not a satisfactory practice. For instance, the Freed's white dent, a hardy, vigorous growing variety suitable for growing in Western Kansas under conditions quite unfavorable for corn, produces comparatively good yields in Eastern Kansas; but the Kansas sunflower, a variety developed in a comparatively congenial environment for corn, is at a decided disadvantage when grown in the environment in which the Freed variety was developed.

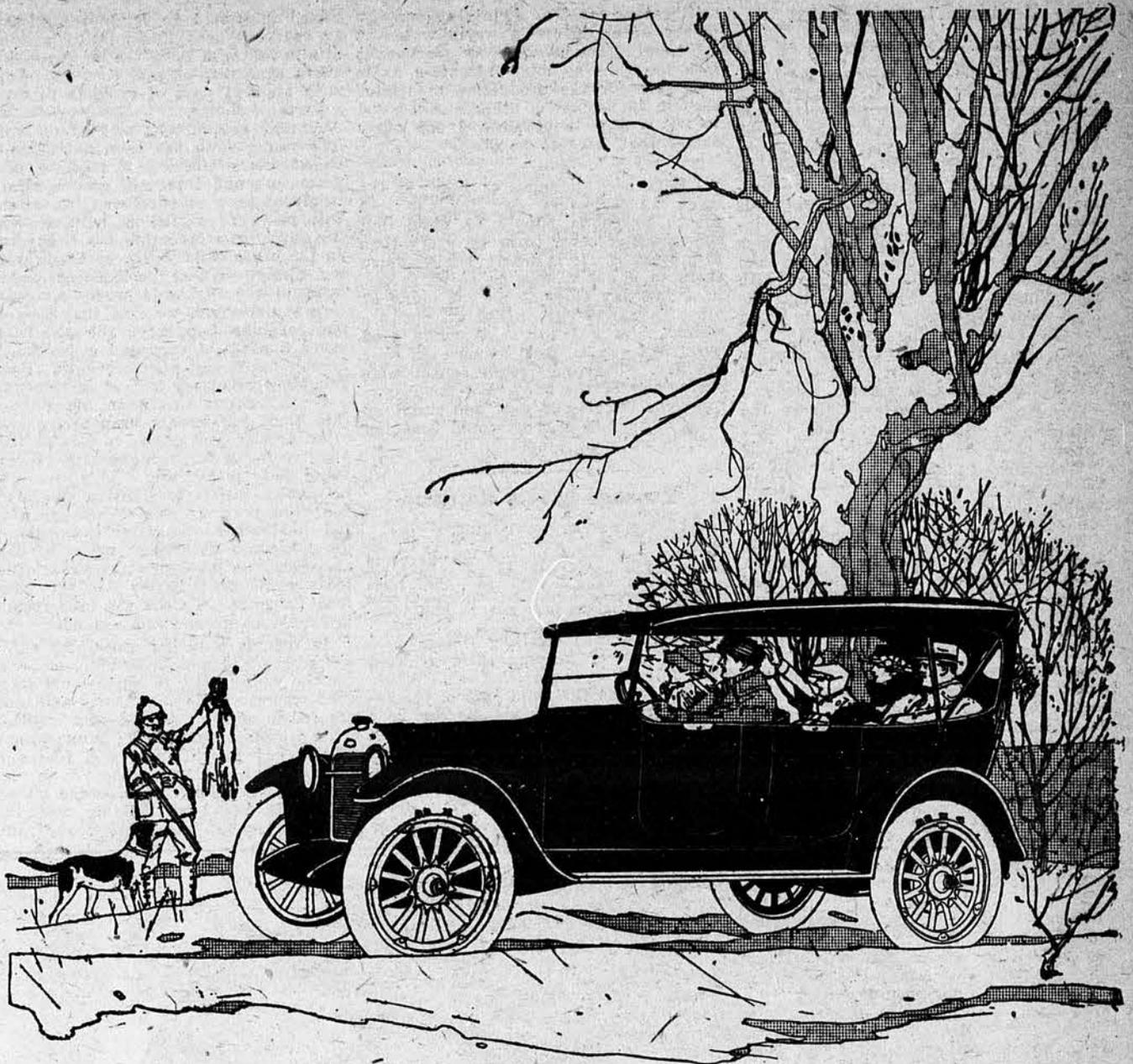
In many parts of Eastern Kansas soil fertility is the limiting factor in production. The rainfall is sufficient and the growing season is long enough to permit of large yields. The soil, however, is too poor to produce good yields of corn. As a rule, varieties somewhat below the average in size produce better on these soils than do large varieties. These results show the relative adaptability of large, medium and small varieties to fertile and unfertile soils in Eastern Kansas. It will be noted that the relative yields of the varieties were reversed for the two types of soil.

Average Acre Yield.

Variety.	Days to Mature.	Fertile Soils.	Unfertile Soils.
Hildreth yellow dent.	135	70.1	23.9
Commercial white...	125	69.5	33.3
Pride of Saline....	115	62.8	35.9
Freed's white dent....	105	55.6	37.4

It will be seen that the adaptability of the variety of corn to the conditions under which it is grown is the most important factor within the variety affecting the yield. The size of the variety and the time required for it to mature must be such that it will best utilize the growing season or use to the best advantage the available moisture or plant food where these materials are the limiting factors in production. A superior variety for growing on bottom soil in a given locality may be adapted poorly to upland soils in the same locality. The variety best adapted to the fertile upland soils in a locality may not be the best one for a poor soil in that community. Every farmer will have to decide for himself the variety or varieties best adapted for growing under his particular conditions. Whether it will be a large, medium or small variety will be governed by the fertility of the soil, the length of the average growing season and the annual precipitation.

Eat no pork on Saturday.



An Investment in Efficiency

CERTAINLY the farmer's need for a substantial motor car has never been so great as it is now.

The larger part he plays in national affairs, the increased demands upon his time and knowledge, alike require for him a better means of transportation.

Progressive farmers in all parts of the country are awake to this need and in thousands of instances are wisely meeting it with an Oakland Sensible Six.

In choosing such a car they insure themselves the highest type of service at the minimum of upkeep cost, and their purchase becomes a real investment in efficiency.

The high-speed overhead-valve engine of the Oakland Sensible Six is immensely

powerful and economical; it delivers 44 horsepower at 2600 r. p. m., or one horsepower to every 48 pounds of car weight.

The finely-made chassis is extraordinarily strong and serviceable, and the slightly body is swung on long springs over a generous wheelbase, insuring full comfort.

The car as a whole is handsome in proportion and finish; it is unusually roomy and accessible, and is upholstered with genuine leather throughout.

As a perfected example of scientific light-weight construction, high power and fixed economy, its value is not equaled in the present car market.

OAKLAND MOTOR CAR CO.
PONTIAC, MICH.

Owners of the Oakland Sensible Six report extremely high gasoline and tire mileages from their cars.

- Touring Car . . . \$ 990
 - Roadster 990
 - Roadster Coupe. . . 1150
 - Sedan 1190
 - Sedan (Unit Body) 1490
 - Coupe (Unit Body) 1490
- F. O. B. Pontiac, Mich.

OAKLAND SENSIBLE SIX

Republic County Notes

BY D. M. HESSENFLOW

A steady cold soon tells on the stock and the feed as well. If a good warm shelter is not provided the extra feed does little good, at least I have found that to be the case. I have what seems to be a good cattle shed and in a way it is, but the cold nights made the animals shiver. The north side of this shed is banked with straw on the inside, chicken wire being used for this purpose so the cattle cannot eat the straw out. It has a board roof with the shingles over the cracks, but the frost comes right thru it, so I am going to put straw on the roof also. The south side is open but I think another winter I will close part of it up. The water tank is on the south side and about a foot of it extends under the shed so the stock do not have to go out for a drink. The heater is in this tank. About a foot of wheat straw is kept on the floor of the shed at all times.

The roof of the new chicken house was given a layer of straw to keep the frost from coming thru. Chicken wire is put over this to keep the hens from scratching and the wind from blowing it off. The cold weather set the hens back from laying so they probably will need some coaxing to get them started again. I am feeding ear corn and it seems to give them plenty of exercise as it is fed in a deep litter of straw and as they pick it off some of it gets mixed with the litter, forcing them to scratch for it. A few oats are fed at noon with a little bright alfalfa hay, while whole corn is fed at night. The

self-heating water fountain supplies plenty of clean, fresh, warm water at all times. The average farmer cannot give the hens so much attention as is necessary for the production of winter eggs if he has much other stock, wood to cut and a thousand and one other things that have to be done.

I have been planning on going to the creek almost every day for the last month to cut a supply of wood, but something or other turns up every time to prevent it. It is nearly 4 miles down there so if one cannot go so as to put in a full day there is no use going at all. The trees we intend to cut are walnut, elm and ash. All make good wood and can be used at once as they are dry. That will mean considerable sharpening of the saw. We tried sawing some oak ties a year ago and they were so hard that they would heat the saw, so we gave it up.

Tankage in Hog Rations

BY H. J. GRAMLICH

I wish you would tell me whether corn and tankage alone will do as a feed for young brood sows. Will these two feeds supply sufficient bone and muscle in the pigs? What is the best way to feed tankage?

The problem in handling young brood sows is one of keeping them growing without gaining too much flesh. Where corn is used as the main part of the ration it is almost impossible to keep sows from becoming too fleshy even where tankage is fed. At present prices one could well afford to feed shorts as a partial substitute for the corn. Corn fed dry, with shorts added in the form of a slop, or dry, together with tankage

mixed in should be fairly satisfactory. In case one used this mixture and has alfalfa hay in a rack, the parts could be about equal amounts of corn and shorts with about 1 part of tankage to every 8 parts of shorts.

A very satisfactory method of handling young sows has been developed in recent years whereby a mixture of 3 parts corn and 1 part of ground alfalfa is placed in a self-feeder. The alfalfa will prove of sufficient bulk to keep the sows from becoming too fleshy and on the other hand will keep them growing nicely. Where you depend on alfalfa in the rack and where access to corn is unlimited, we find that they do not consume 1 part of the alfalfa to every 3 parts of corn and consequently become too fleshy. Of course, an alfalfa grinder is necessary to feed in this way.

Some feeders, this year, are putting into their self-feeders bran and shorts, allowing the gilts access to this at will, and feeding a limited quantity of corn twice daily in addition. This proves to be quite a satisfactory ration and keeps the gilts growing nicely. Oats can be fed in limited quantities especially if ground, altho at present prices of oats they are no cheaper than the other feeds mentioned. Barley is a very good feed for gilts. To get the best results it should be ground and soaked.

As regards a ration containing sufficient bone and muscle building material for the young litter of pigs, would state that where considerable shorts and bran are fed in addition to the corn together with a limited quantity of tankage, and alfalfa hay at will, you will find ample material to develop the young pigs properly. Corn, of course, is the lowest in muscle and bone building material, whereas any of the other feeds rank

comparatively high in these constituents.

If you have only corn, tankage and alfalfa to feed these gilts, I would suggest that you feed about 1-3 to 1/2 pound a day of the tankage in the troughs. A little oats could be mixed with this to make it somewhat bulkier and cause them to eat it more slowly. Feed them corn which would amount to about 2 1/2 per cent of their live weight daily. In other words, if the gilts weigh 200 pounds, give them a total of 5 pounds of corn a day. This will not prove sufficient feed to satisfy their appetites but they will doubtless eat sufficient alfalfa to finish their meal.

Dehorning

The practice of dehorning dairy cows is to be commended under most conditions. The advantages gained more than offset the losses occasioned by the fighting of the animals or by the temporary decrease in milk yield caused by dehorning. It is generally considered that well-shaped and polished horns add to the appearance of an animal in the show ring, so that in case of show herds dehorning is not practiced.

Dehorning should be done at a season when there are no flies to infect the wounds. If the growth of horns was not prevented when the animals were young calves, the horns are best removed after the animals have reached the age of 2 years, as otherwise there is a tendency for the stubs to grow. In removing the horns, they should be cut at a point 1/4 to 1/2 inch below the junction of the skin with the base of the horn; if cut higher, they may continue to grow. Dehorning shears or saw are instruments designed especially for removing horns easily and quickly.

It is possible, by a simple treatment, to prevent the growth of horns on young calves. When the animal is 3 to 5 days of age, the hair around the horn buttons, or developing horns is cut away so that the horns can be seen or felt. To perform the operation, a stick of caustic potash or caustic soda is moistened slightly and rubbed on the horn button, care being taken that none of the caustic gets on other parts of the skin or on the hands of the operator. The caustic destroys the horn, leaving but a slight depression. If the first application does not prove effective in cauterizing the horn, another application may be made in three or four days. This treatment is much more convenient to apply and causes less of a shock to the animal than dehorning after the animal is grown.

Corn and Wheat Grinding

Thru the intervention of Governor Capper the Federal food administrator for Kansas, Walter P. Innes, has procured a modification of the order issued by the national Food Administration regulating the exchange of wheat and its substitutes. No more objectionable order has been issued from Washington than the original to which the farmers of Kansas and other states have shown united opposition. Mr. Innes says in his letter to the governor:

For your personal information I enclose herewith regulations governing custom grinding and where the farmer grinds his own meal. I am sure you will agree with me this is the most liberal thing we could do for the farmer.

Here are the rules as they now stand, enclosed by Mr. Innes in his letter to Governor Capper:

Millers may make exchange with producers without insisting on producer taking substitute commodities. But millers are requested to urge producers as a patriotic duty, to co-operate in flour conservation by the use of substitutes for wheat flour in accordance with substitution regulations, using an equal quantity by weight of wheat substitute for all flour used. Where the consumer takes his own corn to the mill to be ground into meal for human consumption he shall secure a certificate from the mill, dated and signed, stating the quantity of meal in pounds and for whom ground. This certificate may be presented to dealer in wheat flour who will deliver according to quantity restrictions, from time to time wheat flour to a total not to exceed the equal weight of such corn meal. Every purchase of wheat flour must be endorsed and dated in ink on the back of said certificate and a record kept on the books of retailer covering each transaction. This is for the protection of the retailer in case of investigation.

For the People

We believe that three-fourths of the people of this county are for Capper for Senator. He is the best governor for the poor man we ever have had.

M. W. Yonnally.
Iva M. Yonnally.

Syracuse, Kan.

4 H.P. WEIGHS ONLY 190 LBS.

8 H.P. WEIGHS ONLY 320 LBS.

Easy to Move From Job to Job

"The Cushman Gasoline Motor is the light weight wonder for fast, steady, smooth power. I use it for all the work on the farm because it is so easy to move from job to job."

That's the way one farmer writes about his Cushman—and his letter is similar to thousands of others.

A few years ago the output of our factory was 200 engines a year; now it is 10,000—all due to the fact that the Cushman gave the farmer what he needed and what he had never had before—a high grade reliable engine, light enough to move around from job to job, and sold at a fair price.

Cushman Light Weight Engines

Built light and built right. Weigh only one-fourth as much, per horsepower, as ordinary farm engines, but are so well built of such good material, so carefully balanced and so accurately governed that they run much more steadily and quietly. Cushman Engines may be attached to grain binders, corn binders, corn pickers, potato diggers, etc., to save horses. We furnish attachments.

May be mounted on hay balers, shellers, shredders, small threshers, etc. They do all regular jobs such as grinding, sawing, pumping, elevating grain, etc., more satisfactorily than heavy engines. Ask for book on Light Weight Engines. Sent free.

CUSHMAN MOTOR WORKS
814 North 21st St., Lincoln, Nebr.

Before You Buy Any Engine Ask These Questions

How much does it weigh? If it weighs more than 60 lbs. per horsepower, what is the reason?

Is it throttle-governed? A throttling Governor insures steady, quiet, economical operation.

Has it a good carburetor? The Cushman has the Schebler—one of the best made. Many so-called farm engines have no carburetor.

Has it a friction clutch pulley? The Cushman has one, that alone would cost \$15.00.

4 H.P. on Binder. Weighs only 90 lbs. same engine used on all other farm work.

8 H.P. on Hay Baler. Weighs only 320 lbs. Same engine used for all other farm work.

4 H.P. Truck Outfit. Same engine used on binder.

Sizes up to 20 H. P.

CUSHMAN

Characters Essential in Corn

BY C. C. CUNNINGHAM

The most important thing to consider in choosing a variety of corn is the adaptability of the variety to the conditions under which it is grown. Just what is included by the term adaptability is not fully known. A variety adapted to a given locality must be of the proper size to take full advantage of the average growing season and mature properly. If some other factor such as moisture or plant food is the limiting one, the variety to be adapted should be of such size that it will utilize to the best advantage the supply of these materials available under normal conditions. Adaptability includes many other things, the most important of which is the ability to thrive in an environment as a result of having been grown in that environment or a similar one for many years. This particular feature of adaptability is evidently accumulative and when it is associated with the right kind of selection on the part of the grower it is the most dominant factor within the plant affecting the yield.

The importance of this phase of the factor of adaptability was demonstrated at the Hays Experiment station in Western Kansas during the drouthy season of 1911. Four varieties of corn—Boone county white, Reid's yellow dent, Kansas sunflower and pride of Saline—were grown under practically identical conditions. While all the corn finally dried up, the pride of Saline, an adapted variety grown under West-central Kansas conditions for at least 20 years, remained green and in a flourishing condition during the drouth at the time the corn should have been earing, about 10 days longer than the other varieties which had been introduced from Eastern Kansas. The pride of Saline produced by far the most foliage, and the only reason it remained green the longest was because of its acquired ability to withstand heat and drouth to better advantage than the varieties introduced from more congenial corn growing sections.

Where moisture and plant food are not the limiting factors of growth, the size of the variety is governed by the length of the growing season. The corn should be sufficiently late to utilize the entire growing season or the portion of the season that is normally favorable to the development of this crop. Nature can produce more in 130 days than she can in 100 days. For this reason, a variety of corn which requires 130 days in which to mature will yield a greater number of bushels than will a variety that matures in 100 days.

Two varieties of corn, the Kansas sunflower and the pride of the North, were grown under comparative conditions on the agronomy farm of the Kansas State Agricultural college for seven consecutive years, 1903 to 1909. The Kansas sunflower is an adapted variety of yellow dent corn well suited in size to Eastern Kansas conditions, while the pride of the North is an early maturing variety adapted for growing in the Northern states where the growing season is comparatively short. The Kansas sunflower matures in 125 days, while the pride of the North will ripen in about 100 days. These varieties yielded as follows: Kansas sunflower, 58 bushels an acre; pride of the North, 50.7 bushels an acre.

A Cure for Loco?

I have a 5-year-old horse that has started to eat loco. What can I do to cure him? I do not like to keep him up and feed him grain and hay when pasture is so much cheaper. Any information that you may give me will be gratefully received.

Colorado. D. A. M.

Poisoning by loco occurs in horses, cattle and sheep. There are two varieties of the loco plant that cause the poisoning. They are known as the White and Purple loco. The more prominent symptoms are a staggering and uncertain gait, or there may be a complete loss of control of the limbs. If the loco is not taken away from the animals, they eat more and more of it and become so fond of it that they practically discontinue the eating of other feed, and sooner or later lose flesh and die of starvation.

The condition may be treated quite successfully by taking the animals from the pasture containing the loco and feeding them on a laxative diet. Alfalfa is good for this purpose, and if, in addition, a handful of flaxseed meal be added to the grain ration, the animal's bowels will be kept in a relaxed state.

Frequently this is sufficient to effect

a cure, but in other cases medicine must be given. For the horses, from 1/2 to 3/4 ounce of Fowler's solution of arsenic in the drinking water or sprinkled on the feed is efficient. For cattle, a hypodermic injection daily of 1-6 to 1-5 grain of strychnine sulfate and 6 grains of sodium cacodylate has given the best results. The Fowler's solution should be colorless and odorless. If you simply tell the pharmacist that you do not wish any color or odor for the Fowler's solution, he can then prepare it for you in that way.

Recovery will be slow, but care will bring the animal to a practical cure in the majority of cases. It is best not to subject the animal to temptation by placing it in a pasture that contains loco after a cure has been obtained.

K. S. A. C. Dr. R. R. Dykstra.

Why Our Club's "Different"

(Continued from Page 13.)

a fine sow. And I want to thank Mr. Capper for his great work for the boys. As I close I want to say Hurrah for the Capper Pig Club for 1917, and that I am glad I will be in the 1918 contest."

Some of the contestants have reported losing pigs during the intensely cold weather. We do not want to handicap any boy in this contest because of misfortune which was no fault of his, and any boy who has lost his contest entry

may breed for a later litter. This matter must be taken up with the contest manager, tho, and permission secured.

Many counties have their membership almost completed. Only county clubs with 10 boys in line can compete for the \$100 county prize. Get busy and enroll before March 1.

We've got to hand it to Bill Brun of Atchison county. Nine of the 10 boys met at the Brun home a few days ago and organized for what they assert will be a winning drive for the pep trophy and the \$100 county prizes. Atchison county came close last year. Better keep an eye on that club in 1918. I commend Bill's example to other county leaders who haven't shown much pep since the 1917 contest closed. County leaders will hold their leadership until reappointment or a successor is appointed. The boys are "for" a leader who takes hold of things like Bill Brun does and so is the contest manager.

Tractor Farmers to Wichita

The sixteenth annual Interstate Show of Machinery will be held at Wichita February 21, 22 and 23. It will be under the auspices of The Wichita Thresher and Tractor club. It is estimated that 1 1/2 million dollars' worth of machinery will be on exhibition, including every type of farm machinery from a common plow or road scraper to the mammoth

tractor and the largest threshing machine, together with every accessory. The machinery will all be under its own power. A big tractor parade will take place and the line of accessories will be drawn by the tractors. A big free entertainment is being arranged. On arrival register at the Forum and see this great show. This is the year when machinery must be used to help make up the deficiency in man power. Remember the dates, February 21, 22 and 23.

Get a Spray Outfit

For the large home garden the best spray outfit probably is the barrel spray. This can be placed on a wagon, cart or sled and drawn with a horse to any part of the garden as needed. The same type of pump is often placed in a small barrel or tank set in a frame which is pushed about like a wheelbarrow. For the small garden a bucket pump probably will be found more serviceable. This is fastened to a bucket by means of thumb screws or clamps and may be carried about conveniently. Knapsack pumps and compressed air outfits are often used, but these get out of order frequently and are somewhat expensive as well. For the very small garden, a fine-rose sprinkler will answer for the spraying needs.

The care and development of a colt is almost as important as its breeding.

This Sign has helped \$10,000,000 worth of "Z" Engines to sell over 150,000 farmers of America who demand the best for their money



LOOK FOR THE DEALER WHO DISPLAYS THIS SIGN

They had seen all engines — they decided — and "Z" engines are proving the wisdom of their choice everywhere today on their work.

3 & 6 H.P. Use Economical Kerosene

Also Distillate — Coal Oil — Tops — Gasoline

—These 150,000 practical Farmers saw the advantages of the "Z" Built-in Magneto, everything complete, no batteries to fuss with or buy.

—They figured out the savings using Kerosene, at half the cost of gasoline, getting more than rated power in the "Z."

—They wanted the strength, simplicity and staunch durability of the "Z" Engine with its gun-barrel cylinder bore—its leak-proof compression—quick starting—low first cost—low upkeep—Fairbanks-Morse Quality.

—They bought on demonstrated performance in action—regardless of price to get the biggest dollar-for-dollar values per H. P. ever built into an engine. They acted wisely.



3 H.P. \$89.00
6 H.P. \$156.00
Both With Throttling Governor
1 1/2 H.P. (Gasoline) \$48.00 on skids
All F.O.B. Factory. With BUILT-IN MAGNETO

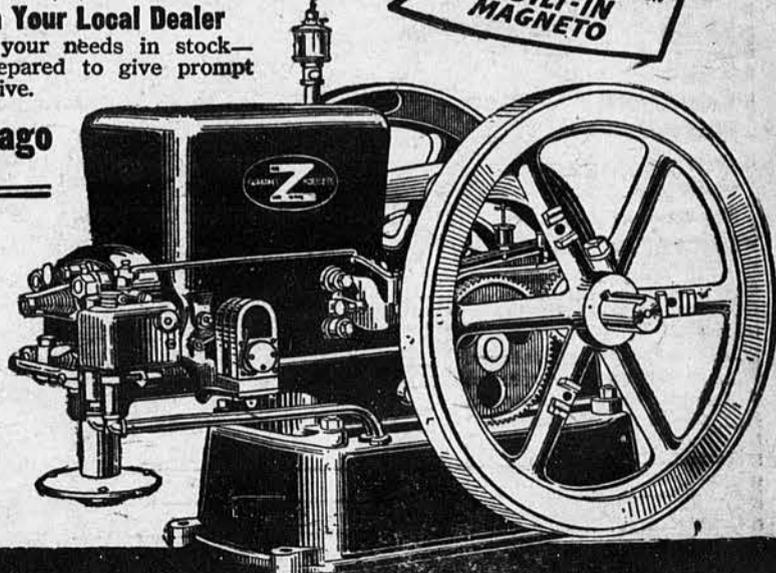
The Service You Get When You Buy From Your Local Dealer
Your local dealer has just the type "Z" for your needs in stock—waiting for you. Buy from him. He is prepared to give prompt delivery and personal service right where you live.

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Why Farmers Buy This Better Engine

1. Fairbanks-Morse Quality.
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5. Gun Barrel Cylinder Bore.
6. Leak-proof Compression.
7. Complete with Built-in Magneto.
8. More than Rated Power.

Don't think of Buying ANY Engine Till You See the "Z" in Action.



Potatoes for Western Kansas

BY W. M. JARDINE

A great increase should be obtained this year in the number of acres planted to potatoes in Western Kansas. That potatoes can be grown profitably in areas of limited rainfall has been proved entirely possible. A limited acreage has been grown at the Fort Hays station during each of the last five years with very fair success. At this station in the season of 1916 Early Ohio potatoes planted in early April yielded without irrigation an average of 74.8 bushels an acre.

It might be of interest to Kansas farmers to know that experiments have been conducted in growing potatoes under dry-land conditions, and to learn of the results of those experiments. In traveling over dry-farming areas while connected with the United States Department of Agriculture, I found an occasional farmer growing potatoes successfully in a small way. I believed it would be desirable to undertake some experiments with potatoes to see if there is any difference in the adaptation of varieties and whether there might be a best method of growing potatoes under dry-land conditions. In the spring of 1908 I was given permission to conduct some investigations with potatoes in connection with the dry-land grain investigations which I had in charge at points in North and South Dakota, Montana, Colorado and Utah. Experiments with potatoes were conducted as follows:

- Variety tests—10 to 25 varieties were grown at the various points.
- Rate of planting tests—one medium sized tuber was planted to a hill in rows varying from 2 to 4 feet apart; hills varying from 9 to 36 inches apart in the rows.
- Depth of planting tests—in which single tubers of medium size were planted in a hill to depths of 4, 6, 8 and 10 inches.
- Miscellaneous tests—such as comparing whole tubers of different sizes, tubers cut into different sizes and of three grades, large, medium and small; and tubers of the same size, but varying in the number of eyes they contained.

The following are the most practical features brought out in these investiga-

tions: Early Petoskey, Irish Cobbler and Early Ohio proved to be the best varieties for planting, not because they were the highest yielders, but because they matured early—the chief requirement under dry-land conditions. These varieties yielded as an average at Akron, Colo., for 1908 and 1909, and under a rainfall of 16 and 20 inches respectively, 225, 202 and 186 bushels respectively, of which amounts four-fifths were marketable. Almost equally large yields were obtained at Williston and Dickinson, N. D. These yields probably are considerably higher than can be expected on an average, altho the seasons were not above normal.

Taking all the stations into consideration for the two years, the average yield was about 100 bushels an acre. This amount can be expected when the right variety is grown under reasonably favorable treatment. Only the early maturing varieties should be planted, for the growing season on the dry-lands is short.

It was found that potatoes planted in rows 3 feet apart, hills 18 to 24 inches apart in the rows, gave the best results. Medium to large tubers—either whole or sectioned—produced larger yields and more marketable tubers than medium to small tubers—either whole or sectioned. Plantings at depths of 4 to 6 inches were more satisfactory than shallow or deeper planting. Tubers with one or two eyes produced to better advantage than tubers with a greater number of eyes. It also was found that potatoes, when given the proper cultural treatment during their growth, left the land in very good condition for growing wheat.

I urge that every farmer in Western Kansas plant at least 1/2 acre of potatoes this spring. For planting purposes in Kansas, Early Petoskey, Irish Cobbler and Early Ohio will produce the largest yields of marketable potatoes. The difficulty this year, however, will be in obtaining seed for planting. It probably will be necessary to plant those varie-

ties of which seed can be obtained. Seed probably can be best purchased thru the established seed houses.

In the western half of the state potatoes should be planted during the last week in March, but the middle of April is not too late for good results. As with other crops, a good seedbed should be prepared and land that has been plowed early should be used. The crop should be well cultivated. Arrangements should be made to combat the common insect pests and diseases affecting potatoes. Probably the greatest danger lies in the Colorado potato beetle. The most effective method of controlling this insect is by spraying. Spraying should begin as early as necessary to prevent injury to the plants and should be repeated as often as necessary to keep the vines covered with poison. For this insect alone, two or three sprayings or perhaps more will be required, but by combining the poison with Bordeaux mixture, both fungous and insect pests are controlled without making separate applications necessary.

For detailed information on potato growing, spraying materials and spraying machinery, write to the Kansas Agricultural Experiment station, Manhattan, for Bulletin No. 194 on Potato Culture.

Don't Underfeed the Cows

Cows must be fed as individuals and not as a herd if they are to be fed economically. The quantity of milk produced by the cow is an indication of the quantity of feed she must have. The first use to which the animal puts its food, whether producing milk or not, is to maintain the functions of the body. The feed in excess of this amount is used for producing milk, storing fat, or for growth of the foetus.

Underfeeding is perhaps more common than overfeeding. The effect of underfeeding may not be noticed at once, as the cow will produce milk for a

time by converting the surplus flesh of her body into milk. Hence, if a cow declines in weight while she is producing milk, it is an indication that she is not receiving enough feed.

The feeds in a ration must be such as to provide a sufficient bulk to satisfy the appetite and feeding capacity of the animal, and to supply the amount of nutrients needed by the cow. An animal may be fed enough nutrients in the form of grain to perform her work but she may receive too little bulk to be satisfied.

The roughage should form the foundation of the dairy ration. A cow should have all the roughage she can clean up, and the grain ration should be regulated by the amount of milk produced. A cow should be fed 1 pound of grain to every 3 pounds of rich milk produced.

The three substances which must be considered in making up the ration of the dairy cow are protein, carbohydrates, and fats. These substances are found in all feeds but in varying proportions.

Cows must be fed intelligently if the highest and most economical returns are obtained. One of the principal reasons for the low average production of many cows is that they are not properly fed.

Economic feeding resolves itself into the study and execution of the lesson which nature teaches. The cow makes her greatest production in the early summer. The intelligent feeder therefore will strive to maintain similar conditions as nearly as possible thruout the year.

O. E. Reed.

Standing by the Flag

Since I heard of Governor Capper being a candidate for United States senator I have talked with several people in this county and find that he can count on good support here. I am now in the wheat business and the stand which the governor has taken has made him many friends among the farmers. It looks as if we were not treated fairly when they fixed the price of wheat and left flour and implements and twine at such extortionate figures. But we are standing by the flag just the same and we can be depended upon to stand by our governor in his race for the senate.

L. B. White.

Cunningham, Kan.

The Quest

Life is not built within a single day,
But from all years and lives that lived before;
We pass as children down that great highway
Which leads unto our future. From the store
Of passions of all ages we design
That which we call our life—and we, the last,
Give this to those who follow in the line
That tropes from out the ages we have passed.

Blindly we seek—we know not how or where—
The answer to the question born with man;
Somehow we know the journey's end is there,
And life is built conforming to that plan.
Thus do we come, each nearer to the goal,
One tiny bit complete—life nearer whole.
—Frank M. Simison in The Farmers Review.

Information on Castor Beans

There is a considerable demand for information in regard to Castor beans; there is more interest in this crop than Kansas has had for many years. You can get bulletins that will supply the information you need from the Oklahoma Experiment station, Stillwater, Okla., and the United States Department of Agriculture, Washington, D. C.

Test the Kafir Seed

Kafir seed probably is in the worst condition in Kansas the growers have ever known. Most of it absolutely will not grow. No one should plant a pound of this seed that has not been tested.

Special Ten Day Offer

Readers of the Farmers Mail and Breeze can receive a big Western Weekly, ten weeks for only 10 cents. Capper's Weekly is the biggest and best general home and news weekly published in the West. Contains all the latest war news, also the political news of the State and Nation. Review of the week's current events by Tom McNeal, interesting and instructive departments for young and old. This is a special ten day offer—ten big issues—10c. Address Capper's Weekly, Dept. M. B., Topeka, Kansas.—Advertisement.

Don't Spend a Dollar Too Much For Your Implements This Year

Our Proposition Is This—

WE will sell you as good farm implements as have ever been made and at the same time enable you to make a substantial saving in the purchase price. This is the year when every dollar counts and as you can NOW get genuine Sattley Implements at factory prices, you can use the saving for making other purchases for the farm or put it down in your own pocket if you don't need anything else just now.

SATTLEY Implements

At Factory Prices

We can save you money because we own and operate the Racine-Sattley Factories and sell to you direct at factory prices. When you consider that Sattley Implements are known and used from one end of the country to the other and for over 60 years have been recognized as strictly high grade standard farm tools, you can't afford to buy any implements of any make until you get our prices. We can save you money. What implements would you like to know about? Get our prices. Compare them with the prices asked for any farm implements built. But before you buy ANY implements—Get our prices. Check and mail the coupon today.

Montgomery Ward Co.
Satisfaction Guaranteed or Your Money Back
CHICAGO KANSAS CITY
Write the house nearest you

Mail This Coupon NOW!

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Write house nearest you.

Please send me full information on prices and special features of Sattley Implements I have checked. This places me under no obligation.

Riding Plows Disc Harrows Corn Planters
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The Open Land

We of the open country,
Men of the ranch and range,
Bronzed of skin and out to win,
Men of the landscape strange,
Hail you and bid you hither,
Brother so far away,
City-begulled and greed-defiled,
Into the air of the day!
Here are the visions splendid,
Girded with space and light;
Ride where you will, there is beauty still,
Breath and the body's might.
The silver gray of the mesa,
The alkali blotch below,
The water's pool where the grass grows
green,
And the far peaks tipped with snow.
The great gaunt scars of the chasms,
Where the pines are written things,
Small of girth and stunted from birth,
Where nothing flies or sings.
Yellow the sands or dapple,
Up where the foothills wind,
And the white stream leaps down the can-
yon deeps
With the roar of the beast behind.
Myriad changes, myriad moods,
Oh, the glad gamut of life!
Deserts abloom or bare as doom,
Places for sleep or strife.
All of it splendid, all of it ours!
Brother by brother stand!
Ho, for the West, where to breathe is best,
Hail for the open land!
—Richard Burton in "Poems of the Earth's
Meaning" (Holt).

To Help With Raspberries

An excellent Farmers Bulletin, No. 887, on Raspberry Culture, has just been issued by the United States Department of Agriculture, Washington, D. C. This is well adapted to the needs of Kansas growers, and every farmer who has a few vines should send for the bulletin if he wishes to increase production. And while you are about it you may find these bulletins of interest; all can be obtained free from the department on application.
The Home Fruit Garden: Preparation and Care. (Farmers' Bulletin 154.)
The Propagation of Plants. (Farmers' Bulletin 157.)
Pruning. (Farmers' Bulletin 181.)
Canned Fruit, Preserves, and Jellies: Household Methods of Preparation. (Farmers' Bulletin 203.)
Grape Propagation, Pruning, and Training. (Farmers' Bulletin 471.)
Blackberry Culture. (Farmers' Bulletin 643.)
Manufacture and Use of Unfermented Grape Juice. (Farmers' Bulletin 644.)
Strawberry Growing. (Farmers' Bulletin 664.)
Muscadine Grapes. (Farmers' Bulletin 709.)
Muscadine Grape Sirup. (Farmers' Bulletin 758.)
Home Canning by the One-Period Cold-Pack Method. (Farmers' Bulletin 839.)
Home Canning of Fruits and Vegetables. (Farmers' Bulletin 853.)
Commercial Evaporation and Drying of Fruits. (Farmers' Bulletin 903.)
Directions for Blueberry Culture. (Department Bulletin 334.)
Factors Governing the Successful Shipment of Red Raspberries from the Puyallup Valley. (Department Bulletin 274.)
Methods Followed in the Commercial Canning of Foods. (Department Bulletin 196.)

When to Plant Vegetables

The garden specialists of the United States Department of Agriculture divide vegetables into two classes—"warm temperature" and "cold temperature" vegetables. When peach and plum trees are in blossom, they say, it is time to sow in the open ground such seeds as lettuce, radish, parsley, beets, turnips, cabbage, carrots, peas and onions. The wrinkled peas should not be planted until later, as they are more likely to rot in cool ground than are the smooth varieties. When the apple trees bloom, it is time to plant the heat-loving vegetables such as cucumbers, beans, sweet corn, pumpkin and squash. This is an old but excellent rule.
The quickest crop to mature is the radish. Lettuce, turnips, peas, beets and beans usually require from six to nine weeks, corn from 11 to 13 weeks, and potatoes from 15 to 16 weeks to mature.
Lettuce is to the garden what the hay crop is to the field—always needed, and gives some of the best returns. A rich sandy loam, with sufficient nitrates to stimulate leaf growth and intensify the leaf color of the plant is needed. Much the same soil is needed for cabbage.
Beans do not require very rich soil, and it is safe to plant the crop on the very poorest patch. Snap beans may be grown in rows between the orchard trees. The Lima bean requires a rich, moist soil, but does not seem to deplete the land of its productiveness. Lima beans have been grown on the same fields in California for many years.
Cucumbers, squashes, and melons require rich soil, and the cucumber profits by the application of fresh horse

manure. Sheep manure will hurry plants along more rapidly than most chemical fertilizers.
The specialists believe that if the general principles they have outlined are followed, it will be profitable for almost any one to plant his idle acres this season. They point out that even where the monetary value of the crops raised is not important, the gardener and his family must credit to the patch the health and enjoyment gained from this outdoor occupation. They point out that from the community point of view it is the duty of every home owner to keep his place orderly and attractive. The most profitable way of getting rid of a patch of weeds in a back yard is to cultivate it and plant it to some valuable crop, the orderly character of which will add much to the comeliness of the home grounds.
Gardening is an old, old story. It is related that nearly 20 centuries ago Pliny the Elder summed it up in a sentence of just six words: "Dig deep; manure well; work often."

Team Play

The United States is just us—you and I and the folks next door and the people across the way—just us.
What we do counts to make or break the power of the United States—every minute, every act—to save or destroy us. In all we do, all we spend, all we eat—we must have care.
Food is our first and last resource, the dominant resource in this war. Our food supply is the final dependence of our allies; the food situation is the worst worry in Europe—worse now than when we began to figure. On our food supply hangs their fighting power, their chance of avoiding famine, their hope of survival.
We have already shipped to Europe every grain of this year's surplus wheat. To keep our allies going we must stretch our remaining supply—eat more corn and oats and potatoes. We must send them more meat; eat poultry and fish and beans.
That means team play—going without wheat one meal every day and Wednesday every week; it means going without meat one meal every day and Tuesday every week; no pork on Saturday; a weekly sugar limit of 3/4 pound apiece.
Team play—you and I and the folks next door and the people across the way—will do all that needs to be done. Let's help.

Where to Get Money for War

The unearned profit in real estate in the last 20 years of eight Chicago millionaires, now dead, has increased all the way from 180 to 1,647 per cent and is increasing today, an increase due solely to the growth of Chicago and the industry of the people.
A report showing the net profits of 21 Canadian corporations, after the Canadian war taxes have been deducted has just been made public. The Canadian profits tax is just about twice as heavy as the present United States profits tax. This Canadian report shows steel profits increased 338 per cent, flour mills 31 per cent, canning companies 46 per cent and paper companies 131 per cent. For the total industrial field the gain is 69 per cent with war taxes twice as much as ours deducted.
While big business in Canada has doubled its large pre-war earnings, our big business has done as well and probably better with its big tariff-free home market and the world's war traffic. But Canada exacts 75 per cent for war taxes. We take 31.
When it comes to excess profits and profiteering, the United States leads the world by a tremendous margin, but Canada takes 75 per cent, England takes 80 per cent and Uncle Sam takes only 31 per cent of these excess profits.
The present Congress should make our excess profits tax equal England's. If it doesn't go far to make big business bear its fair share of the war burdens, it will have to reckon speedily with the American people.

WE BOTH LOSE MONEY IF YOU DON'T SELL YOUR HIDES TO T. J. BROWN 126 N. Kansas Ave., TOPEKA, KANSAS
Green salt cured hides, No. 1, 15c. Large hides (as to size) No. 1, \$5.00 to \$6.50 No. 2, 15c. (as to size) No. 2, \$4.00 to \$5.50
Write for prices and shipping tags. Payments made promptly.

WANT AN AUTO FREE
WHAT AUTO NAMES CAN YOU FIND?

Here's your big opportunity. It's your great chance to get a dandy auto. Solve this puzzle in two minutes' time. Be the owner of a fine car. By using most of the letters in this puzzle you can spell the names of seven autos. Only use a letter as many times as it appears. For instance, the letter "O" appears six times. The letter "O" should only appear a total of six times in all the names. You can easily think of names such as: the Maxwell, Regal, Buick, Dort, Overland, Ford, Monroe, Dodge, Briscoe, Chevrolet and Saxon.
We have given away over 150 autos in the past few years. We're going to give away two more now—a \$1095 Monroe and a Ford Touring Car, \$200 motorcycle, a \$75 diamond ring and many other valuable prizes. You can be the next to get a car or some other fine prize—whatever you choose. So send in your solution to the puzzle at once. Get in line.
LET US SEND YOU A CAR FREE—FREIGHT PREPAID
Something Special: If you send in your solution to the puzzle right away and become a member of the club, we will give you a Genuine Gold Filled Signet Ring Guaranteed for 5 Years. You've no chance to lose, but you can easily get a fine auto. EVERY CLUB MEMBER POSITIVELY WILL BE REWARDED. Send in your list of names TODAY.
RHODS AUTO CLUB, Department B, TOPEKA, KANSAS

PRIZE COLLECTION - VEGETABLE SEEDS -

Vegetable Seeds—
Producing vegetables that everybody loves. Well filled packets of highest quality seed—absolutely pure and of high germination. The kind that will surely grow, produce and please you. We obtain these seeds from a seed house backed by over 50 years of honest and square dealing. We recommend the seed and assortment as the best we can offer our readers.
Start A War Garden
If we are to win the war it will be necessary for nearly every family to raise their own supply of vegetables. Be patriotic—send for these guaranteed seeds on our exceptionally liberal 15 day offer below.
PRIZE ASSORTMENT TEN VARIETIES
One Packet Lettuce. One Packet Parsley.
One Packet Radish. One Packet Squash.
One Packet Cucumber. One Packet Beet.
One Packet Turnip. One Packet Onion.
One Packet Carrot. One Packet Tomato.
Special 15 Day Offer
We will send this fine assortment of ten packets vegetable seeds, postpaid to all who send us \$1.20 to pay for a yearly subscription to the Farmers Mail and Breeze. Satisfaction guaranteed. New or renewal subscriptions accepted. Address
Farmers Mail and Breeze Seed Dept., Topeka, Kan.

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Grow These Six Lovely Roses In Your Own Garden

Everyone loves flowers and the one special favorite of all is the Rose. The beauty of the Rose is first manifest in its long, graceful, shapely and solid buds, delicate and firm in texture and opening to present a depth of blossom showing a formation of shell-like beauty.

The Hardy Everblooming Garden Cut-flower Roses are the result of crosses between the Hybrid Perpetual (June Roses) and the Monthly Blooming Tea Roses. The flowers appear with the same freedom as the Teas, affording a season of almost perpetual bloom.

The American Beauty

The Greatest of Them All

The American Beauty is one of the most vigorous Roses we have. It makes the heaviest stems and the largest bush, it not being unusual to see a rampant bush with a dozen canes as thick as one's finger and

several feet in height. The American Beauty is unquestionably the most popular Rose now before the public, a popularity due principally to its splendid value as a winter forcing variety.

Alexander Hill Gray, (Yellow) A lemon yellow rose, strikingly pleasing both in form and fragrance. The flowers are large and heavy, beautiful in every respect, and come freely upon the plant. The growth of the bush is inclined to assume a compact form and produces the flowers in abundance. Yellow roses are often desired by growers and this one is sure to become a great favorite as its yellow is more pronounced than others of this class.

La France, (Pink) Whatever else one may plant in the way of Roses, the garden should contain this Rose to be complete. Or, where only a few Roses are to be grown, this one should find a place. It is silvery-rose in color, with a sweet fragrance, and the flowers come freely and constantly. The blossoms are large, full and globular, and of that graceful, decided rose-form that is so much to be desired. The plant is of moderate growth and compact—in short a plant that is of the right type to produce the very finest flowers.

Senator Mascurand, (Yellow) A salmon-yellow rose that has numerous admirers. The flowers are borne freely, with delicate fragrance, and are very large, very full, and of fine form. The bush is tall at maturity; the stems long and graceful. This variety is considered a superior sort because of the beauty of the buds and flowers, and the profusion of bloom. It will keep up a continuous succession of bloom into cold weather. Its ease of growth and willingness to adapt itself to all conditions make it a most valuable rose for the non-expert.

Lady Alice Stanley, (Pink) A grand giant-flowering Rose stands head and shoulders above all other Roses of its class. The flowers which are all splendid form, are large and full, and somewhat of the June Rose type. The buds are particularly handsome in form, the full blooms large and double, the petals of immense size, and the blossoms are highly perfumed. It is considered the leading Rose of the Garden for cutting and successfully competes with many of the finest greenhouse productions as a cut-flower variety.

Madison, (White) A creamy-white Rose, very highly perfumed, with a texture of blossom that forms a wonderful substance. The flowers are large, full and heavy and follow each other so rapidly there is not a noticeable pause between the successions of blossoms. Even when not in bloom which happens very rarely, the bush is a distinct ornament to the garden. It thrives with such little care and attention that the amateur can grow it to perfection.

The Instructions sent with the roses will make it easy for you to bring the plants in fine large bushes even if you have never before grown roses.

SPECIAL 20-DAY OFFER We will send the above assortment of six roses postpaid, safe delivery guaranteed, with a one-year subscription to Farmers Mail and Breeze at \$1.20. New, renewal or extension subscriptions accepted.

Use This 20-Day Special Offer Coupon

FARMERS MAIL AND BREEZE, Topeka, Kansas.

Gentlemen: Please find \$1.20 enclosed for which please send me Farmers Mail and Breeze for the term of one year and send me the six roses postpaid as per your special 20-day offer.

Name

Postoffice

R. F. D. Box State

To Control Oats Smut

BY DEAN B. SWINGLE

Oats smut can be controlled by the formalin treatment. Every bushel of seed sown in Kansas this year should be treated in some way. Prepare the formalin solution by diluting 1 pint (or pound) with 45 gallons of water. This solution may be applied in any one of four ways.

1. Put the solution into a tight barrel or vat and dip into it the sacks half filled with grain, but tied at the top. Move them up and down for a few minutes to get the air out and to wet all the seed. Keep the grain immersed in this solution for 10 minutes. Take out the sacks, drain them, and let them stand without opening for 2 hours or more—if necessary over night.

2. Spread the grain on a barn floor or other suitable place, a sackful at a time, and sprinkle the formalin solution on every sackful with a watering pot. Then shovel it over and mix thoroly to wet every kernel and finally put it into a pile and cover with blankets for 2 hours or more.

3. Put the solution into a water-tight half-barrel, or, better still, into a tank 12 to 18 inches deep, 4 to 8 feet long, and about 2 feet wide. Pour in the seed slowly until it covers the bottom of the tank to the depth of 6 to 10 inches. Stir to get out all the air and, in the case of wheat, to release the light and smutted kernels, which must be skimmed off as they rise to the top. Remove the grain in a few minutes, drain, and put into piles for 2 hours or more.

4. Put the solution into a smut machine and run the grain thru it. Then shovel the seed into a pile and cover with blankets for 2 hours or more. Where a large amount of seed is to be treated, the use of the smut machine offers the most economical method.

Carefully follow directions, using exactly the proportion recommended, keeping in mind that a pint weighs approximately a pound. Always weigh or measure the solution accurately, as many so-called pint bottles will not hold a pint.

Whichever method is used the grain should remain in moist piles for at least 2 hours. If necessary it may be left over night in this condition. It is well, however, to spread it out a little after 2 or 3 hours and let it dry preparatory to seeding. It must be sown within a day or two or else thoroly dried to prevent molding or sprouting. If the grain is still swollen from the soaking, set the drill for a little more seed an acre than if it is dry.

Use the Agronomy Service

Excellent progress has been made by the agronomy department of the Kansas State Agricultural college in the last few years in its co-operative crops work. It now has the results in these co-operative tests with ordinary varieties for all parts of the state. L. E. Call, head of the department, and his men are doing mighty satisfactory work in making farming in Kansas more profitable and satisfactory. Why not take advantage of this work to the limit? If you have questions about the adaptations of the different varieties or about better methods of growing why not write to the department at Manhattan and find out what the experimental work has shown under your conditions? The service is free, and mighty valuable.

Inspect Farm Machinery

Repairing of farm machinery before the opening of the busy field work season is a phase of preparedness that should interest every farmer especially this year. Many costly breakdowns and serious delays may be avoided by putting the implements in ship-shape before they are needed in the field. So important is it for farm machinery to be in a high state of effectiveness this spring that state agricultural boards, colleges and councils of defense have joined in advocating vigorously a Farm Implement Inspection week, to begin March 4.

During this week it is hoped that farmers will scrutinize their various machines, ascertaining what new machines and repairs will be needed the coming year in order to do their work efficiently. This is a job that needs doing anyway, and Farm Implement Inspection week provides an excellent time to attend to it. Dealers all over the country have been asked to assist farmers

specially to order necessary machines and repairs at that time. Besides bringing the farmer's attention to the importance of having his machinery ready for the season's work Farm Implement Inspection week will help implement manufacturers to estimate the amount of steel they will need for farm machinery. Otherwise the steel shortage may leave many farmers without adequate equipment with which to do their work.

A Use for Rabbits

Reports from over all of Kansas indicate that a great use is being made of rabbit meat this year. An excellent trade has been developed in the towns and cities, and in addition farmers themselves are eating rabbit meat very



No Meat Trust Here.

generally, which they have not always done in the past. Probably this will help somewhat in decreasing the rabbit population of the state—which we certainly hope for. Anyhow it is aiding in solving the meat problem.

Idle Acres

Nearly every farm has some portion of it that is either not used at all or is used in such a way as to produce very little. On many farms there are patches of low ground which cannot be tilled because they are too wet. Usually when drained these wet areas are the richest land on the farm.

Just at present, when the world is engaged in the most gigantic struggle in its history, the product of these idle acres is needed. This is an excellent time to put them into use. Patches of wet land can be drained at small expense.

The outlook for profitable poultry raising in Kansas is decidedly bright. Excellent profits will be obtained thru 1918.

Better care will reduce the loss of pigs at farrowing time in Kansas.

Farmers Show the World

Not much is heard any more of criticism of farmers as war slackers, "profiteers." Two-dollar wheat (in reality \$1.85 or \$1.90 wheat) appeared to the average city man enormously profitable.

Those who scored the farmers in Kansas now discover they did not understand the situation, and that they unquestionably did the farmers an injustice, simply thru ignorance. Now, if the city man needs to be "shown," the showing is handy and complete, for the federal government in giving out its agricultural estimate for 1917 last week ranked Kansas in fourteenth place instead of sixth, where it was a year ago. Nothing like such a decline in relative standing has occurred before. In total value of farm products, Kansas, one of the great agricultural states of the Union, fell below Pennsylvania and below New York, below California and nearly 100 million dollars below Minnesota, a state always behind Kansas agriculturally, and more than 120 millions below Nebraska. Notwithstanding, the farmers of Kansas went ahead and put in a war crop of 10 million acres of wheat, some of them having to borrow money to do it!

The truth is, strange as it may appear to the town man, that the Kansas farmer knew what he was talking about.

Field Work Soon to Begin

A week of unusually warm weather for the season has quickened interest in the spring work that is soon to start.

Mitchell County—Wheat looks fair since the good snows. We will have no surplus of feed but enough to take us thru the winter.

Montgomery County—Snow is nearly gone and we are having spring weather. Wheat is of a thin stand. Stock is doing well.

Lyon County—Everyone is glad to see the winter go and spring days begin. Early sown wheat is in good condition.

Meade County—Dry weather still prevails. Wheat is not doing well. All grains are high and there are not enough in the county for seed.

Riley County—A light rain and snow fell February 8. Wheat is alive but very tender. Everyone is busy chopping and storing wood as coal is scarce.

Scott County—The winter weather has been very hard on our wheat. Some farmers report the crop doing well, while others say it is dead.

Morris County—It has taken most of our time the last month to take care of the stock to keep it from freezing to death.

Saline County—We are having ideal winter weather and the snow has about disappeared. Wheat prospects are uncertain at this time.

Elk County—This has been the coldest winter in years and the ground is covered with snow. This snow will greatly benefit the wheat if it has not been winter killed.

Elk County—Wheat fields are covered with snow, but the sun is bright and will soon cause it to disappear. Feed is quite plentiful but high.

Sherman County—There is considerable snow on the ground where it drifted but the fields are bare and wheat has not been greatly benefited.

Woodson County—Frost is almost out of the ground, snow is gone and we are getting a little moisture. Wheat does not look better than 60 per cent normal.

Crawford County—Wheat looks well where protected by snow but where snow blew off it was badly damaged.

Republic County—We have had two distinct extremes of weather during the last two weeks. The week of January 28 was extremely cold, while the present week has been quite warm.

Greeley County—Roads are in bad condition in the northern part of the county. We had a good snow in January but it drifted badly.

Stafford County—Winter weather has prevailed for several weeks. Corn is nearly all husked and brings a good price.

Ford County—We have had a week of warm spring weather. Wheat needs moisture badly. Farmers are short of seed for spring planting.

A Farm Opinion

Governor Capper can depend on my support for Senator, and I find there is very little talk of any other candidate here.

M. D. Chrisman.

Route 2, Sedan, Kan.

Eat no wheat on Wednesday.



Get My Price—FIRST 30 Days' Trial—Satisfaction Guaranteed

I want to quote you a price that will cause you to sit right up and take notice on the grandest, best plow that ever turned a furrow.

Monmouth OR GANG Plow

will prove easier for you to handle, easier on your horses and will do your work better than any plow you can buy, regardless of price.

All Kinds of Farm Tools Sold Direct from Factory To You.

I want to tell you all about these plows and our other implements—Cultivators, Disc and Spike Tooth Harrows, Corn Planters, Grain Drills, Mowers, Rakes and other farm tools—all sold at factory prices.



Get My Free Book

Lightest Draft Plow Made

Monmouth Plow Factory, 121 So. Main St. Monmouth, Ill.

THE SERGEANT AND THE WISE ROOKIE

WHAT DIFFERENCE DOES IT MAKE TO YOU WHETHER YOUR REGIMENT CHEWS W-B CUT OR NOT?

IF THEY CHEW W-B CUT THEY'RE ALWAYS SURE TO BE HAPPY AND CONTENTED!

HE'S A KNOWING CUSS, THAT RECRUIT!



Fully Guaranteed

You Can Save 50% on Your Sewing Machine

Farmers Mail and Breeze New Model Machine Now Ready for Delivery.



- Six Drawer. Drop Head. Solid Oak Case. Panel Front. Ball Bearing.

The Farmers Mail and Breeze has contracted with one of the largest sewing machine factories for the distribution of their latest model machine.

Guaranteed Ten Years

The Farmers Mail and Breeze will warrant every machine for ten years from date of shipment, and after fair trial of it, if perfect and entire satisfaction is not given, and defects cannot be remedied, the machine may be reshipped to us at our expense, and your money refunded promptly.

It Costs Nothing to Investigate

Our offer is a real money saving proposition for our readers. We do not ask you to do any soliciting in order to take advantage of the plan we submit.

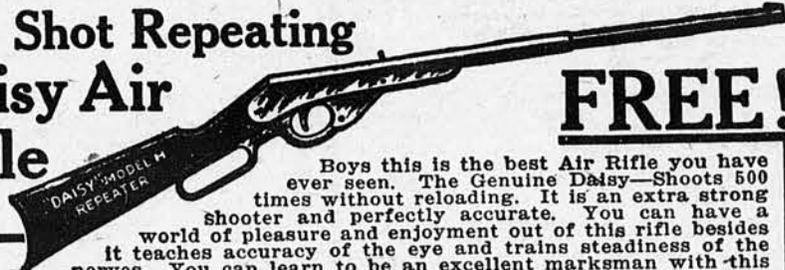
If you are interested in getting a first class guaranteed sewing machine at a real bargain send us a postal card and say, "I want full information about your new guaranteed sewing machine offer." It places you under no obligation.

Farmers Mail and Breeze

Dept. S. M.

Topeka, Kansas

500 Shot Repeating Daisy Air Rifle



FREE!

Boys this is the best Air Rifle you have ever seen. The Genuine Daisy—Shoots 500 times without reloading. It is an extra strong shooter and perfectly accurate.

SEND NO MONEY I want to give every boy one of these fine rifles FREE and POSTPAID—All I ask is just 2 hours easy work among your closest friends and neighbors, giving away FREE only 10 packages of high-grade Patriotic Post Cards in connection with my big liberal 25c introductory offer.

ARTHUR CAPPER, Publisher, 612 Capper Building, TOPEKA, KANSAS



GIRLS! GIRLS!

This is positively the most beautiful wrist watch you have ever seen. For neatness and attractiveness it can't be beat.

SEND NO MONEY I want to give one lady or girl in each locality one of these beautiful wrist watches FREE for just a little easy work, which you can do in an hour or two.

Address C. C. French, Manager, Dept. 37, Topeka, Kansas

BOYS! BOYS! GIRLS, TOO!

\$1,000 IN PRIZES GIVEN AWAY FREE

SOLVE THIS PUZZLE



CULVER RACER AUTO "FIRST GRAND PRIZE"

Not a Toy

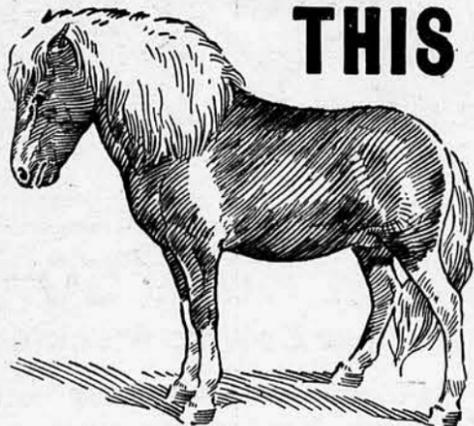
But a Real Gasoline Automobile

BUILT LIKE THE BIG RACERS

Capacity—Carry two passengers.
 Frame—Pressed ch. steel.
 Steering Gear—Wood with metal spider.
 Wheels—Wire inter. ball-bearing 20x2 clinch rim.
 Tires—Culver non-skid.
 Clutch—Foot pedal, 15 b. Axles—Crucible steel.
 Gas Tank—22 gal., 1.60 m. Wheel Base—56 in.

Springs—Cantilever, elliptic.
 Speeds—3 for., 3 reverse.
 Brake—Foot and hand.
 Engine—Air cooled 6 h. p. Weight—250 pounds.
 Speed—Up to 25 miles.

This fine little automobile is built especially for boys and girls. You can learn to run it in an hour's time. No complicated parts to get out of order and is perfectly safe for a child of 8 years. This little Culver Racer will do anything a full-sized car will do because it is built in proportion to a big car. Have been giving these little automobiles away for several years, and they are giving the very best of satisfaction. The Culver Racer not only affords a world of pleasure for boys and girls but is also a real necessity. You can run errands, take things to market, go after the mail and just do anything with a Culver Racer—all you have to do is to crank it, jump in and go—further information and complete specifications will be sent you. Some little girl or boy is going to be the proud owner of this fine Culver Racer at the close of this club—why not YOU—solve the puzzle below and get in on the ground floor.



THIS IS "DON"

Second Grand Prize Value \$100.00

Here I am—I am wondering what nice little boy or girl will be my master at the close of this club. My name is "Don"; I am 4-years old and about 40 inches high; I am real black with four white feet and some white in my mane and tail. We do not show a very good picture of "Don" but he is a mighty pretty little pony and loves nice Boys and Girls and wants a good home. We gave "Don's" little brother away last month to a nice little girl just 8-years old, and I just wish you could know how easily she won him. Don't fail to join my club—solve the puzzle below and write TODAY.

tle pony and loves nice Boys and Girls and wants a good home. We gave "Don's" little brother away last month to a nice little girl just 8-years old, and I just wish you could know how easily she won him. Don't fail to join my club—solve the puzzle below and write TODAY.

How Many Words Can You Make?

This puzzle is a sure prize winner—absolutely everyone in this club wins. It is not hard either—just a little ingenuity and skill. The puzzle is to get as many words as possible out of the letters herewith given. Use only the list given, and only as many times as they appear in this ad. For instance, the letter Y appears three times, so in all your words you must not use Y more than three times. If you use Y twice in one word, and once in another, you cannot use Y in any other word as you have already used it as many times as it appears in this advertisement. It is not necessary that you use all the letters. The puzzle looks easy and simple, but if you can make as many as 12 or 15 words, send in your list at once, as the person winning first prize may not have more than that many.

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

A TOTAL OF 15 GRAND PRIZES

1. \$250 Culver Racer Automobile.
2. Shetland Pony "Don" value \$100.
3. \$50 in Gold.
4. \$25 in Gold.
5. 17-Jewel Elgin Watch 20 year case.
6. 17-Jewel Elgin Watch 20 year case.
7. 15-Jewel Elgin Watch 20 year case.
8. 15-Jewel Elgin Watch 20 year case.
9. 7-Jewel Elgin Watch 20 year case.
10. 7-Jewel Elgin Watch 20 year case.
11. 3 1/2 x 4 1/2 Folding Eastman Kodak.
12. 3 1/2 x 4 1/2 Folding Eastman Kodak.
13. 3 1/2 x 4 1/2 Folding Eastman Kodak.
14. Ladies' or Gents' Fine Wrist Watch
15. \$5.00 in Gold.

OUR OFFER

We are the largest magazine publishers in the West, and are conducting this big "Everybody Wins" word building contest in connection with a big introductory and advertising campaign, whereby we will give away 15 grand prizes as listed in this advertisement, and we want to send you sample copies and full particulars as to how to become a member of this contest club and be a sure winner. We give 100 votes in this contest for each word you make. To the person having the most votes at the close of the club on June 1, 1918 we will give the Culver Racer Automobile first prize, value \$250.00; to the second-highest we will give the Shetland Pony "Don" second prize value \$100.00; to the third highest \$50.00 in gold, and so on until we have awarded the 15 grand prizes as listed in this advertisement.

Notice: Every new member this month also receives a beautiful GENUINE GOLD FILLED SIGNET RING GUARANTEED FOR 5 YEARS FREE AND POSTPAID, JUST FOR PROMPTNESS. Anyone may enter this club, and there was never a better offer made especially to boys and girls. Please bear in mind there is absolutely no chance to lose; POSITIVELY EVERY CLUB MEMBER WINS. If there should be a tie between two or more club members for any of the prizes, each tying club member will receive the prize tied for. Get an early start—send in your list of words TODAY.

BILLY FRENCH, Mgr., 206 Capper Bldg., Topeka, Kan.

Wheat Substitutes in Demand

(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.)

A strong demand for carlots of corn suitable for milling advanced prices 5 to 10 cents a bushel last week, although there was an appreciable increase in receipts and it is regarded as probable that the movement will continue to expand. The market showed a weaker tendency Saturday.

Regulations of the Food Administration requiring extensive substitution of corn, oats and other cereals is causing a big demand for the latter products. Mills are getting more orders than they can fill, tho there has been a hasty transformation of some wheat grinding machinery to make the substitute meals and flours.

Apparently the increased demand is more for corn and barley products than for oats, as the latter did not advance last week, while corn is up 5 to 10 cents and barley 8 to 12 cents, making a rise of 15 to 25 cents in corn and 15 to 20 cents in barley since the latest Food Administration conservation regulations were issued two weeks ago.

All the corn and oats mills in the country are grinding all the suitable grain they can get up to their capacity, and it is said that they are handicapped in filling domestic orders by having some large export sales to fill. The growing evidence of wheat shortage makes it clear that demand for wheat substitutes will continue to broaden. Arrivals of corn at four principal markets last week were 3,466 cars, an increase of 573 over the preceding week's and 1,347 cars more than a year ago. In the corresponding week in 1916 receipts were 4,215 cars.

The Food Administrator and the director general of the railroads continued their efforts to expedite the movement of corn. Cars received at elevators are to be returned empty to the point of origin and in general carlots to be given preference over oats and other grain. Assurances have come from Washington that every possible effort is being made to enlarge the railroad facilities for moving corn to central markets, and Food Administration grain corporation officials in the West have organized transportation bureaus to help in the disposition of cars in the most effective way.

Carlot sales of No. 3 corn and better, in Kansas City Saturday were 5 to 10 cents higher than a week ago. Low grades, for which inquiry was only moderate, were irregularly unchanged to 3 cents lower, with most sales quoted 1 to 2 cents easier. The highest price paid last week was \$1.96 for No. 3 white and \$1.90 for No. 2 mixed and as high as \$2.05 was paid for No. 2 white. The range of sales Saturday was \$1.45 to \$1.91, compared with \$1.45 to \$1.79 the preceding week and 97 1/2 cents to \$1.01 a year ago.

Preference given to corn shipments, frequently at the expense of oats, kept primary receipts of the latter grain moderate and slightly under expectations. Demand for carlots continued good and firm prices were maintained, white oats selling up half a cent to 90 cents, a new record price for Kansas City.

Arrivals of oats at three principal markets were 1,086 cars, a little more than in the week before and 200 cars more than a year ago. Reported export clearances were 816,000 bushels.

Arrivals of wheat at five principal markets failed to increase, although there was decided improvement in the car situation, which had formerly been given as one cause of the light supplies. Uneasiness among mills is growing since the demand for flour continues as strong as ever and the source of future stocks of wheat becomes more and more uncertain.

Kansas City mills made almost as much flour as in the preceding week, 61,000 barrels, but it was necessary to draw on their reserve stocks. The Food Administration allotted them only 48 cars, which is less than a fourth of the quantity actually ground.

Each of five principal markets had about the same amount of wheat as in the preceding week. The total was 1,096 cars, compared with 2,330 a year ago and 3,446 cars two years ago. Kansas City receipts for the week were 126 cars, compared with 705 cars a year ago.

Exports of wheat and flour last week, as reported by Bradstreet's, were 2,029,000 bushels. In the preceding week shipments were 2,816,000 and a year ago 5,855,000 bushels.

Carlot prices for grain at Kansas City Saturday were:

Wheat: Official fixed prices. Dark Hard Wheat: No. 1, \$2.19; No. 2, \$2.16; No. 3, \$2.13. Hard Wheat: No. 1, \$2.15; No. 2, \$2.12; No. 3, \$2.09. Yellow Hard Wheat: No. 1, \$2.11; No. 2, \$2.08; No. 3, \$2.05. Red Winter Wheat: No. 1, \$2.15; No. 2, \$2.12; No. 3, \$2.09. Soft Red Wheat, "Onions": No. 1, \$2.13; No. 2, \$2.10; No. 3, \$2.07.

Wheat which is graded below No. 2 and is of superior quality may be priced at a premium not exceeding 2 cents above the grade price, except when graded down for certain specific causes.

Corn: No. 2 mixed, \$1.72 to \$1.90; No. 3, \$1.60 to \$1.70; No. 4, \$1.50 to \$1.55; nearly white, \$1.65 to \$1.75; No. 5, \$1.45 to \$1.50. No. 2 white, \$1.95 to \$2.05; No. 3, \$1.85 to \$1.91; No. 4, \$1.84 to \$1.87; No. 5, \$1.75; No. 2 yellow, \$1.86 to \$1.90; No. 3, \$1.70 to \$1.72; No. 4, \$1.59 to \$1.60; No. 5, \$1.50. Ear corn, sales \$1.45 to \$1.46; white, \$1.65 to \$1.75.

Oats: No. 2 white, 88 1/2 c to 89c; No. 3, 87 1/2 c to 88c; No. 4, 86 1/2 c to 87c. No. 2 mixed, 85c to 86c; No. 3, 84 1/2 c to 85c. No. 2 red, 86c to 86 1/2 c; No. 3, 85c to 85 1/2 c.

Mild weather which brought improved shipping conditions increased the movement of livestock last week and the market was unsettled. Five Western markets received 197,000 cattle, 507,000 hogs and 164,000 sheep this week, 30,000 more cattle, 107,000 more hogs than last week and about the same number of sheep.

The bulk of the cattle were fat steers. Most of them sold at \$10.50 to \$12.25, and were quoted off 25 cents. Some prime 18-month-old Missouri bred and fed Shorthorn steers weighing 1,325 pounds sold at \$13.75, a quarter higher than any other cattle have brought this year, and a new high record price for the first six months in any year. Other choice to prime steers sold at \$12.75 to \$13.25. Colorado steers sold up to \$12.85, and Idaho, Oregon and Wyoming steers at \$11 to \$13.

Butcher cattle prices declined about as much as fed steers, but owing to better quality in some cases prices showed a higher

range. Heifers sold up to \$12, yearlings \$11 and veal calves \$14.25. Medium grades predominated. Most of the cows sold at \$11.50 to \$9.50 and heifers \$9 to \$10.50.

Tuesday it looked as if Eastern shipping demand was going to break into the competition at Western markets and make up for the shortage of the last few weeks. Some hogs sold on orders and prices jumped 50 cents a hundred pounds, the best selling at as high as \$17, compared with \$16.40 on Monday. Shippers were willing to operate again Wednesday, but they met with car shortages and the market weakened. In the last three days prices fell back 60 cents from the high level Tuesday, showing a net gain for the week of 10 to 15 cents. Increased receipts added to the weakness in the market.

It has been several years since hogs carried as much weight as now. The average weight last week was close to 229 pounds, or 38 pounds heavier than a year ago, and the heaviest this year by 10 pounds.

Prices for lambs were quoted up 10 to 15 cents and for sheep up 25 cents. Prime lambs sold up to \$17.35, yearlings \$14.75, wethers \$13.75 and ewes \$13. The prices spread down, not including culls, was about \$1. Receipts were moderate, and feeders are showing no intention to crowd the market.

Good Care for Sows

Brood sows should be kept in good physical condition during the gestation period. Exercise can best be provided by feeding the sows some distance from the sleeping quarters, or at least giving the brood sows a comparatively large yard in which to exercise. The gestation period ranges from 112 to 115 days. It is essential that a record be kept of the brooding date so that the sow may be removed from the rest of the herd several days before she is due to farrow. It also is essential that the allowance of feed be reduced several days before farrowing. This will have a tendency to improve the physical condition and keep her from becoming feverish.

It also will have a tendency to check the early milk flow and in this way avoid complications such as milk fever. If the sow farrows during cold weather, it may be advisable to remove the young pigs and put them in a basket placed in a warm room. By many breeders this is regarded as a desirable practice under all conditions, putting the young pigs with the sow every 3 hours so they can nurse. As soon as the sow has quieted down, they may be put back and left with the sow the entire time. The brood sow should be fed only a small amount of solid food during the first two or three days after farrowing. A liberal supply of water will aid in restoring the normal condition of the body. At the end of two or three days begin increasing the amount of feed for the sow and feed her all she will consume until the pigs are weaned.

The best time to wean pigs is when they are from 8 to 10 weeks old. This is an important period in the life of the young pigs and the change should be brought about gradually. If the pigs are not weaned properly, their growth will be stunted and they will never retain their normal rate of gain. The young pigs should be taught to eat so that they will not be entirely dependent on the food secured from the dam. This will not only aid in weaning the pigs, but it also relieves the sow from supplying all of the food necessary to grow the pigs up to weaning time. If the young pigs are handled in this way, the feed allowance for the brood sow may be reduced gradually at weaning time, which will have a tendency to check the flow of milk, and the young pigs will wean themselves. The practice of abruptly removing the young pigs from the sow, without previous preparation, is detrimental and should not be practiced.

As soon as the young pigs have been weaned, they should be developed either as breeders or market pigs. In any event they should have access to forage crops of one kind or another. This not only has a tendency to produce quicker growth, but also materially reduces the cost of production.

Tuberculosis?

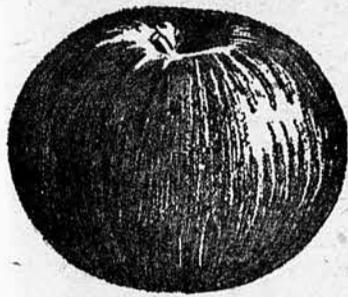
I helped a neighbor butcher a hog and got some of the meat. There were little white spots on the liver of the animal. Do you think this meat is good to eat?

Oklahoma. J. M. R.

In my opinion, the carcass of this animal is affected with tuberculosis. The latter is a communicable disease from animals to man, and government inspectors would condemn the meat of this animal for human food. In some European countries, the meat of such animals is sold with the distinct understanding that it must not be consumed by humans until it has been subjected to thoro boiling to destroy all the germs of tuberculosis.

K. S. A. C. Dr. R. R. Dykstra.

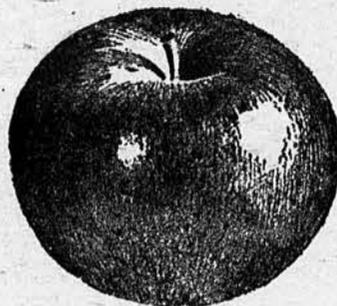
10 Apple Trees Free To You



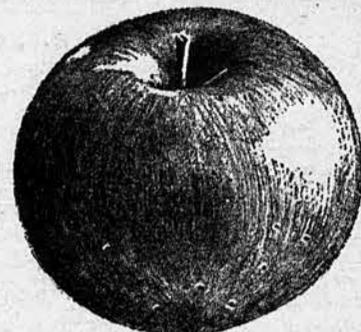
3 Wealthy



2 Delicious



2 Jonathan



3 Northwestern Greenings

10 Real, Live, Hardy Apple Trees—Apple Trees of the Very Choicest Quality—Apple Trees As Fine As You Can Buy

Two one-year subscriptions to Capper's Weekly }
10 Splendid Apple Trees (3 Wealthy, 2 Jonathan, }
2 Delicious and 3 Northwestern Greenings) }
All shipping charges prepaid.

All for only
\$1.00

Wonderful Value

If you know anything about Apple Trees, this offer is bound to astonish you. Your first thought will be, "It can't be true." But the wonderful part of this offer is that it is true—every word of it. All you have to do is to send in two one-year subscriptions to Capper's Weekly at 50c each—new or renewal and we will send you these 10 Apple Trees true to name, true to variety and exactly as represented, all charges prepaid. These ten trees are just exactly right for transplanting. We picked out these varieties because we knew they could satisfy you. Now, if when your trees are received, they should not be just as represented, you can notify us and we will send your money back.

Complete Instructions

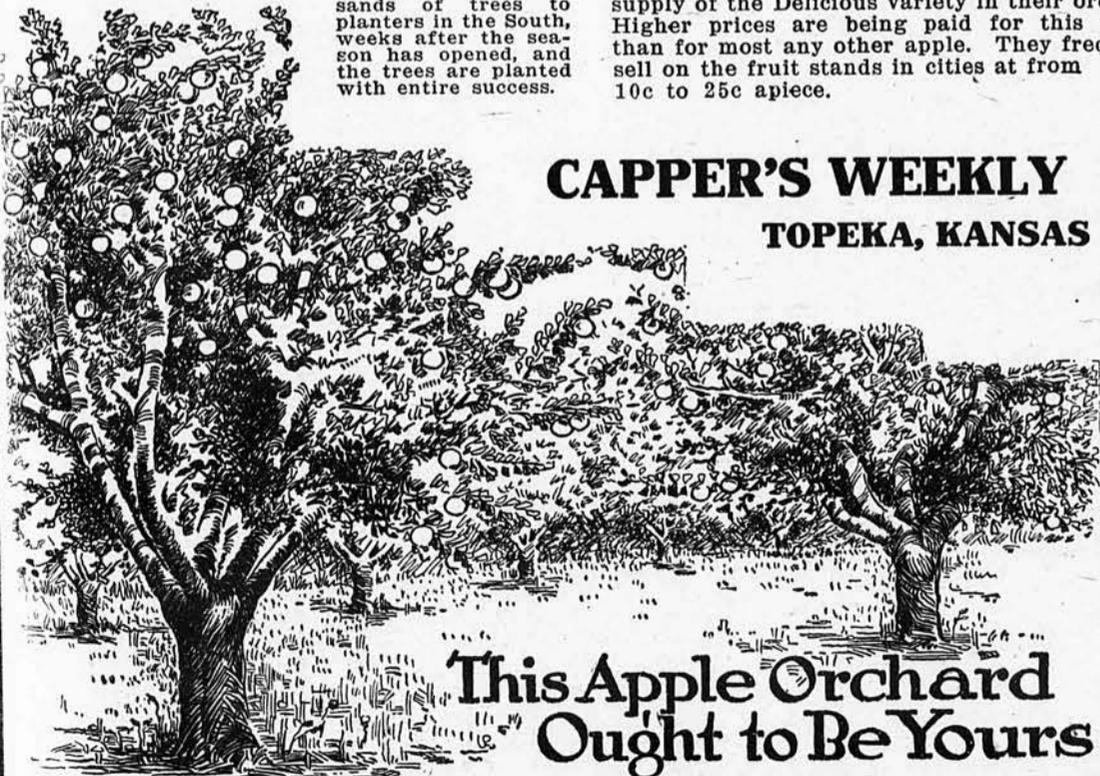
are sent with each set of trees. Positive, but simple directions that explain to you how you are to plant and care for growing of these trees.

This Offer

is made possible by an arrangement which we have made with one of the most reliable and most progressive nursery concerns in the Middle West. These trees are true to variety—healthy, vigorous and this dependable concern guarantees that you can rest assured that you will get exactly the set of trees as described in this page.

When to Plant

Planting season is not regulated by date or by planter's location. This Nursery's method of growing, packing and shipping trees assures arrival of trees in proper planting conditions. Annually they ship thousands of trees to planters in the South, weeks after the season has opened, and the trees are planted with entire success.



This Apple Orchard Ought to Be Yours

Description of Varieties

NORTHWESTERN GREENING. This variety was originated in Wisconsin some years ago. It is a splendid, vigorous, hardy grower. The fruit itself is large and sometimes exceptionally large. It is green as the name implies, but when ripe, it becomes a yellowish green. The flesh is yellow—fine grained and firm. The flavor is a good sub-acid, very smooth and attractive to the palate. The Northwestern Greening is one of the best growers we have and is prolific and bears regularly when mature.

JONATHAN. A brilliant flashing red apple with a spicy, rich acidity that has made it a prime favorite with all lovers of an acid apple. The tree is adapted to many sections. Orchards of them are found in the northeast, south and west and they always pay. The Jonathan is a splendid family sort. For many years, Jonathans have been the standard of quality by which other sorts have been gauged.

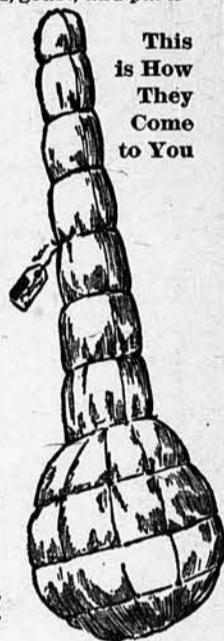
WEALTHY. This variety is an enduring monument to its originator, M. Gideon, of Minnesota. The fruit is large and is a beautiful light yellow shade with crimson stripes and splashes. The flesh is white, often stained with red. The Wealthy Apple is splendid as a dessert or cooking apple. This variety is especially adapted to home gardens, as well as for commercial orchards.

THE DELICIOUS is first of all a quality apple. It hardly needs an introduction to anyone who knows anything about Apple Trees. Many authorities claim that the Delicious has no peer, that it is the finest apple grown. The yields are excellent and as the trees grow older, they bear more and even larger fruit. Almost all of the prominent apple growers have a good supply of the Delicious variety in their orchards. Higher prices are being paid for this variety than for most any other apple. They frequently sell on the fruit stands in cities at from 10c to 25c apiece.

What Is Capper's Weekly?

Capper's Weekly is the great Weekly newspaper of the Great West. Here are the things it stands for and advocates:

1. A vigorous prosecution of the war.
2. An end to war-plundering and price-gouging.
3. The stripping of all waste, graft, and partisan favoritism from war contracts and the public service.
4. The drafting of big incomes and excess war profits to pay for the war.
5. Complete and immediate wartime prohibition.
6. The welfare of the American Home.
7. 100-cents-on-the-dollar government.
8. Better schools and free books and an education that will fit every child for the business of life.
9. Nation-wide prohibition and nation-wide suffrage.
10. An end to fee-grabbing receiverships and the entire fee system.
11. Courts and laws as prompt and as impartial as the postoffice.
12. Fewer new laws and an honest enforcement of those we have.
13. A permanent peace alliance for the total abolition of war.
14. A square deal to everybody, irrespective of condition, race, color or politics.



This is How They Come to You

Arrival of Trees

When your ten trees have arrived, unpack them immediately, carefully shaking out all of the packing and if possible, plant them at once. Full directions as to just how to plant with best success will be sent you.

Apple Orchard Coupon

M & B 2-16-18
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Gentlemen: Please find enclosed \$1.00 which pays for two one-year subscriptions to Capper's Weekly.

1. Name.....
TOWN.....
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(State here if this is a new or renewal subscription.)

2. Name.....
TOWN.....
Street or R. F. D.....STATE.....
(State here if this is a new or renewal subscription.)

My own name is.....
Ship the ten Apple Trees, all charges prepaid to my address which is:
Name.....
TOWN.....
Street or R. F. D.....STATE.....
Note. This offer is not good outside of the United States.

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WHITE ROCKS, SIZE AND QUALITY. Prices reasonable. G. M. Kretz, Clifton, Kan. CHOICE BUFF ROCKS, COCKERELS \$2.50. Hens \$1.50. Mrs. Ike Saunders, Elk City, Kan. WHITE ROCKS—STOCK FOR SALE. Prices right. J. A. Kauffman, Abilene, Kan. FOR GOOD BUFF ROCK COCKERELS write Mrs. Maggie E. Stevens, Humboldt, Kan. PARTRIDGE AND BARRED ROCKS, EGGS \$3 per fifteen. Walter Brooks, Burden, Kan. BARRED ROCK COCKERELS \$3. PULLETS \$1.50. Mrs. C. Duncan, Hartford, Kan., R. No. 2. FANCY BARRED ROCK COCKERELS 2 to 5 dollars. Wm. C. Mueller, Hanover, Kan., R. 4. BARRED ROCKS EXCLUSIVELY. FINE cockerels at \$2.00 up. J. C. Neibrecht, Gridley, Kan. PURE BRED BIG TYPE BARRED ROCK eggs \$1.00 per 15. \$5.00-100. Mrs. George L. Fink, Eddy, Okla. PURE BRED BARRED ROCK ROOSTERS and pullets. Best egg strain. E. Plesinger, Cheyenne Wells, Colo. WHITE PLYMOUTH ROCKS, COCKERELS and eggs, 200 egg strain. Mrs. J. F. Romary, Olivet, Kan. SNOW WHITE ROCK COCKERELS shipped on approval, \$3 and \$5. I. L. Heston, Harper, Kan. WEIGHTER LAYER BARRED ROCK COCKERELS \$3.00 to \$5.00. Eggs \$0.00 100. C. F. Fickel, Earlton, Kan. FINE BARRED ROCK ROOSTERS, FROM pen of laying strain. Mrs. Chas. Armstrong, Mahaska, Kan. PURE BRED BARRED ROCK COCKERELS, \$3.00 each while they last. C. V. LaDow, Fredonia, Kan. FINE BARRED ROCK COCKERELS. Bronze turkeys. Toulouse geese. Emma Ahlstedt, Roxbury, Kan. BARRED ROCK COCKERELS—LARGE, vigorous birds; narrow barred; \$2.00 each. John Fritz, Adams, Neb. FINE LARGE PURE BARRED ROCK COCKERELS, farm grown, \$2 to \$5 each. James Keel, Belleville, Kan. BARRED ROCK COCKERELS. BIG boned. Egg strain. \$2.00 and \$3.00. Mrs. A. E. Huff, Lancaster, Kan. BUFF ROCK EGGS—EXTRA QUALITY. Pens and utility stock. Heavy layers. A. R. Quinnette, Ames, Kansas. RINGLET BARRED ROCKS, FINE LARGE cockerels \$3.00 and \$5.00 each. Mrs. W. E. Schmitendorf, Vassar, Kan. CHOICE EXHIBITION, WHITE ROCK cockerels \$2, \$3, \$5. Satisfaction guaranteed. Judd Boyce, Holtón, Kan. BEAUTIFUL BARRED-TO-SKIN "RINGLETS" Cockerels \$3 up. Eggs, chicks. Edward N. Hall, Junction City, Kan. BARRED ROCKS, WORLD'S FAIR, STATE show champions. Pens mated. Send for catalogue. L. B. Anderson, Nevada, Mo. BARRED PLYMOUTH ROCK COCKERELS, from high scored premium birds, \$2.00 to \$5.00. Mrs. A. M. Markley, Mound City, Kan. WHITE ROCK MALE BIRDS FOR SALE. White Holland turkeys Embden geese. Eggs in season. Mrs. Ada M. Jones, Abilene, Kan. 50 BARRED ROCK COCKERELS AND 200 pullets, \$5.00 up. Eggs \$3.00 a setting, 4 yards both matings. W. H. Ward, Nickerson, Kansas. BARRED ROCK EGGS—FROM EXCELLENT laying strain. Farm range \$1.25 per 15. \$6.00 per 100. Mrs. S. Van Scoyoc, Oak Hill, Kan. WHITE ROCK COCKERELS FROM HEAVY laying strain and bred for standard requirements, \$2.00 and \$3.00 each. Frank Lott, Danville, Kan. BR'D PLY. ROCK. HAVE SOME CHOICE chicks and pullets for sale at \$2.00 and \$4.00 apiece. Satisfaction guaranteed. Gus H. Brune, Lawrence, Kansas. FOR SALE—TWO HUNDRED BARRED Rocks. Of the most noted strains of the breed. Write me your wants. Frank McCormack, Morrowville, Kan. CHICKS—BARRED ROCKS, WHITE LEGHORNS, 15c prepaid. Large hatching capacity. Live delivery. Order now. Jesse A. Younklin, Wakefield, Kan. IMPERIAL BARRED ROCK COCKERELS. Barred to the skin. E. B. Thompson strain direct. \$2 each. No reductions. Mrs. M. T. Arnold, Piedmont, Kan. BARRED AND WHITE ROCK COCKERELS and pullets from my prize pens. Pullets \$2, \$3, and \$4 each. Cockerels \$3, \$5, and \$7 each. H. F. Hicks, Cambridge, Kan. BARRED ROCKS—BOTH LINES, STATE show winners. Good layers. Eggs \$1.50 per 15. \$6.00 per 100. Special matings \$5.00 per 15. C. C. Lindamood, Walton, Kan. WHITE ROCKS—BEST ALL-PURPOSE fowls. As good as can be found anywhere. Eggs \$2 per 15. \$10 per 100, expressage prepaid. Thomas Owen, R. 7, Topeka, Kan. RINGLET BARRED ROCKS, WINNERS wherever shown. Cockerels \$2.00, \$3.00 and \$5.00 each. Eggs and day-old chicks in season. Mrs. C. N. Bailey, Lyndon, Kan. BARRED ROCKS—FIRST WINNERS ST. Louis, Kansas City, Kansas State, Kansas Federation. Few winning males and eggs for sale. J. K. Thompson, 205 The Drive, Topeka, Kan. BARRED ROCK EGGS FOR SETTING. Parks 200 egg strain. Best pens \$3 per 15. \$5 per 30, \$12 per 100. Utility flock, \$6 per 100. Booking orders now. Gem Poultry Farm, Haven, Kansas. BARRED ROCKS; 80 PREMIUMS, 33 firsts, Kansas City, Topeka, Sallina, Manhattan, Clay Center, Denver. Stock for sale. Eggs, 15, \$5.00; 30, \$9.00. Mattie A. Gillespie, Clay Center, Kan. GRAND, GENUINE, IMPERIAL "RINGLETS." Direct from the man who originated them. Eggs \$5.00 setting, either mating. Part cash orders booked at once. Harper Lake Poultry Farm, Jamestown, Kan. "ROYAL BLUE" AND "IMPERIAL RINGLET" Barred Plymouth Rocks. 12 blue ribbons 1917, 203 to 218 egg production, stock and eggs for sale. Free mating list. North Willow Poultry Ranch, A. L. Hook, Proctor, Coffeyville, Kan. BARRED ROCKS THAT PRODUCED 175 eggs each, 1916; 120 eggs seven months 1917. Four prizes 1917. All pens tested by Hogam System. Eggs \$2 and \$3 setting, \$19 and \$15 per 100. Mating list free. Farnsworth, 224 Tyler, Topeka, Kan.

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LIVESTOCK.

SHEPHERD PONY BARGAIN SALE. WM. Harr, Riverside, Iowa.

REGISTERED HEREFORD BULL, 4 YEAR OLD. Geo. Dawson, Clements, Kan.

FOR QUICK SALE: 10 CHOICE HOLSTEIN COWS. V. E. Conwell, Wetmore, Kan.

FOR SALE—REGISTERED GALLOWAY BULLS. Fashion Plate, Silver Lake, Kan.

PURE BRED BROWN SWISS BULL CALVES for sale. J. J. Zimmerman, Harper, Kan.

REGISTERED JERSEY BULLS, \$50. TWO registered cows. Percy Lill, Mt. Hope, Kan.

FOR SALE—MY ENTIRE HERD OF LIVESTOCK and 300 a. of wheat. Write Box 295, Lewis, Kan.

FOR SALE OR TRADE, BLACK JACK FOR Holstein heifers or bull. J. A. Boyd, Ackerman, Kan.

FOR SALE—ONE BLACK IMPORTED Percheron stallion. E. Plessinger, Cheyenne Wells, Colo.

FOR SALE—REGISTERED GUERNSEY bull calf four months old, good individual. Roy McNeal, Rosalia, Kan.

GOOD REGISTERED SHORTHORN BULLS, reds, white and roans, of good breeding. Paul Cashatt, Oskaloosa, Kan.

FOR SALE: AN EXTRA GOOD REGISTERED Brown Swiss bull ready for services. Ulrich Wagner, Humboldt, Kan.

JACKS FOR SALE OR TRADE—1 MAMMOTH and 1 Spanish. H. L. Summers, 23rd and Lincoln St., or phone 3713K3.

FOR SALE OR TRADE, 4 YR. OLD REGISTERED Jersey bull. Son of Stockwell Fern Lad. Jas. H. Scott, R. R. No. 1, Topeka, Kan.

FOR SALE OR TRADE—YOUNG COACH stallions, ages two, three and four years. Broke to work. Farm horses at farmer's prices. C. W. Bergner, Isabel, Kan.

THOROUGHbred JERSEY BULL CALF, seven weeks old. Oxford breeding. Fine milking strain. First check for \$25 gets it. F. O. B. Viola, Kan. W. J. Robinson.

SHEEP WANTED—CARLOAD EWES priced by lb. Have for sale good Oliver typewriter, also Gray and Davis electric starter for Ford. F. U. Dutton, Penalosa, Kan.

FOR SALE REASONABLE—COMING 2 year old Percheron stud, coming 2 year old Shorthorn bull, also 5 coming yearling bulls, all registered. Adam Becker & Son, Meriden, 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.

DOGS.

AREDALES, PEDIGREED STOCK. FIVE dollars and up. Satisfaction guaranteed. Avalon Kennels, Vallery, Colo.

SCOTTISH TERRIERS, GREAT RAT, watch, pet, stay home little dog. Price 11st 5c. Wm. Harr, Riverside, Iowa.

SEEDS AND NURSERIES.

DRY LAND ALFALFA SEED. DE SHON, Logan, Kansas.

FOR SALE—SEED CORN, LAFTAD STOCK Farm, Lawrence, Kan.

SWEET CLOVER SEED ALL SOLD. C. A. Little, Englewood, Kan.

GUARANTEED SUDAN SEED 25C POUND. G. Jamison, Portland, Kan.

MILO MAIZE SEED IN HEAD, 5C PER LB. W. Barrows, Galatia, Kan.

ALFALFA SEED \$8.40 BU. SACKS FREE. Frank Lanier, Belle Plaine, Kan.

FETERITA SEED IN HEAD 5C PER LB. C. E. Grandie, Pittsburg, Kan., R. 3.

ALFALFA SEED, EIGHT DOLLARS bushel. Geo. Waters, Elk City, Kan.

BOONE COUNTY WHITE SEED CORN \$3.00 per bu. Alva Shadwick, Iola, Kan.

FOR SALE—CHOICE RECLEANED BARLEY. Arthur Peterson, Hutchinson, Kan.

A FEW RED TEXAS SEED OATS LEFT. Order now. B. Anderson, Blue Mound, Kan.

RECLEANED ALFALFA SEED AT \$8.00 A bu. Sacks free. E. C. West, Elk City, Kan.

SEED CORN, REID'S YELLOW DENT, \$5.00 bushel. George Manville, Faucett, Mo.

MEXICAN BLACK HULLED WHITE kafir for sale. Peter Rukes, Carbondale, Kan.

BLACKHULL WHITE KAFIR SEED, WELL matured. \$4.75 hundred sacked. Arthur Lee, Tuttle, Okla.

SEED CORN, EARLY OR LATE HILDRETH yellow dent, \$3.00. Originator, C. E. Hildreth, Altamont, Kan.

GOLD MINE CALICO, 100 AND 1 WHITE tested seed corn \$3.50 per bu. J. F. Feigley, Enterprise, Kan.

BUY NURSERY STOCK FROM THE NURSERY that grows it. Catalogue. Peyton Nurseries, Boonville, Mo.

KAFIR SEED—WHITE BLACK HULLED, tested 92% germination at Stillwater. 7c lb. Roy Buss, Hunter, Okla.

PINTO BEANS: DELIVERED YOUR STATION ten cents per pound fifty pound lots or more. C. F. Hines, Elkhart, Kansas.

BLACKHULL WHITE KAFIR SEED, PURE and well matured. \$2.50 per bu, sacks furnished. Otto Apollo, Fredonia, Kan.

BROOM CORN—EARLY DWARF SEED IS scarce. Transportation bad. Order early. \$3 per bushel. Len Sanders, Atlanta, Kan.

PROGRESSIVE EVERBEARING STRAWBERRY plants cheap. Satisfaction guaranteed or money back. J. N. Wright, Emporia, Kan.

FOR SALE—WHITE SILVER SKIN ONION sets, 10,000 to bushel, \$4.50 per bushel. F. O. B.; bushel lots only. Reference Citizens Bank. G. C. Curtis, R. R. No. 1, Hutchinson, Kansas.

SEEDS AND NURSERIES.

SUDAN GRASS SEED \$22 PER 100 LBS. Less than 100 lbs. lots 25c pound. Sacks free. This is fine seed. Geo. D. Buntz, Chase, Kan.

FOR SALE—ALFALFA; Fall River bottom grown white Kafir; black hull cane seed; all 1917 crop. Ask for samples. A. M. Brandt, Severy, Kan.

KAFIR CORN, BLACK HULLED WHITE, dwarf, graded, well matured, \$5.00 per hundred, sacked, our track. W. R. Hutton, Cordell, Okla.

SWEET CLOVER SEED, SPECIAL SCARIFIED, hulled and unhulled. Circular and prices on request. John A. Sheehan, R. 4, Falmouth, Ky.

WRITE FOR PRICES OF NURSERY STOCK to planters; save agents' profits; sweet potato slips in season. Ozark Nursery, Tahlequah, Okla.

GUARANTEED, PURE, WHITE SWEET clover seed. Our own production only. Write for free sample and price. A. L. Woodhams, Grover, Colo.

ALEXANDER'S GOLD STANDARD, IOWA Silver Mine and Champion white dent seed corn, tested, \$4.00 per bu. J. G. Dempsey, Spring Hill, Kan., R. F. 2.

SUDAN GRASS SEED, FREE FROM JOHN- son grass, pure, re-cleaned, twenty-five cents pound any quantity. Order early. Hillside, Leedey, Oklahoma.

ALFALFA SEED FROM NORTHWEST Kansas, 95% pure, good germination, \$7.50 per bushel. Order early. Freight will be slow. Geo. Bowman, Logan, Kan.

SUDAN 1917 CROP, GUARANTEED FREE of Johnson Grass. 25c per lb. 22 1/2c per lb. for 50 lbs. 20c per lb. for 100 lbs. or more. H. Struebing, Winfield, Kan.

FOR SALE—NATIVE SEED CORN—HICK- ory King and Squaw at \$1.25 per peck or \$4.50 per bushel sacked, F. O. B. Tulsa. Binding-Stevens Seed Co., Tulsa, Okla.

SUDAN GRASS—1917 RECLEANED CROP, 22c pound, 100 lbs. with sack \$20, 50 lbs. \$10.50. Cash with order. Order now. Herman Burdorf, Cheney, Sedgwick Co., Kansas.

OFFER US NEW CROP CANE SEED, Egyptian Wheat, Feterita, White Wonder and German Millet, Fancy alfalfa, seed corn and Broom corn. Binding Stevens Seed Co., Tulsa, Okla.

BOONE COUNTY WHITE AND REID'S Yellow Dent seed corn, shelled and tested. \$5.00 bushel, F. O. B. Manhattan, Kan. Cash with order. Sacks 50 cents. James Iles, Manhattan, Kan.

CHOICE ALFALFA AND SWEET CLOVER seed grown by farmers around Winfield and carefully re-cleaned by us. Prices reasonable. Write for samples. Silver Seed Co., Winfield, Kan.

WANT CANE SEED, MILLET, SUDAN Grass, Fancy Alfalfa, Hulled Sweet Clover, Shalu or Egyptian Wheat, Bloody Butcher and Strawberry or Calico Corn. O'Bannon, Claremore, Okla.

KAFIR CORN, SEED CORN, CANE SEED and Sudan. Our prices reasonable, the supply limited, so get yours while the "gettin's good." Free samples. "Alfalfa John" Franklin, Beaver City, Nebraska.

SEED CORN: YELLOW DENT, HAS TEST- ed 97 per ct. Price \$3.50 per bushel; 10 bu. lots \$3.25. Why miss a crop when you can get reliable seed? Bags free. M. R. Mitchell, El Dorado Springs, Mo., R. R. 2.

KAFIR SEED, BLACK HULLED WHITE, Well matured and graded, 1917 crop. 5c per lb. Send South for early maturing seed. Send self addressed and stamped envelope for samples. J. C. Lawson, Pawnee, Okla.

CHOICE SUMAC, ORANGE, WHITE AND Amber cane seed, \$10.00 cwt. Dwarf and Standard Broom corn seed, dwarf Milo, Feterita, Kafir \$7.00 cwt., sacked. Get good seeds while you can. Boyd & Smith, Seedsmen, Hooker, Okla.

ALFALFA SEED, HOME GROWN, NON- irrigated. Good germination. \$7.00 to \$10.00 bu. Sacks 50c. White Blossom Sweet clover, Amber and White Cane, local or car lots. Ask for prices and samples. L. A. Jordan Seed Co., Winona, Kan.

WHIPPOORWILLS OR SPECKLED PEAS 6C per lb. Black eyes 9c. Creams 10c. F. O. B. Winstboro. Cash with order. These seed are 1917 crop and are good sound planting seed. Reference, Merchants & Planters Bank. J. W. Rhone, Winstboro, Texas.

OKLA. DWARF AND STANDARD BROOM corn seed, cream and red dwarf maize, and dwarf Kafir \$7.00. Feterita \$8.00. Amber, Orange and red Cane \$12.00. Red top cane \$15.00. Sudan \$26.00. All 100 lbs. re-cleaned, freight prepaid. Claycomb Seed Store, Guyton, Okla.

SIXTY BUSHELS TO ACRE YIELD MY last year's crop Yellow Dwarf Maize, Maize Seed and Black Hulled White Kafir, \$5.00 per hundred lbs. Boone County White seed corn, Drouth Resister, shelled, \$5.00 per bushel. All seed graded and sacked F. O. B. my track. C. C. Miller, Elk City, Okla.

MR. FARMER: WHY PAY SEVENTEEN to twenty cents for Pinto Beans when you can buy choice re-cleaned beans, in hundred pound bags delivered at your station, from us at twelve and half cents. Every sack guaranteed. Send postoffice money order or bank draft today. Swartz & Son, Growers of Pinto Beans, Estancia, N. Mex.

SEED, GRAIN AND HAY WANTED.

WANT TO BUY CANE SEED, MILLET, Feterita, Maize and other field seed, car lots or less. Also Corn Oats and Hay. Send samples naming quantity and price wanted f. o. b. your station. B. E. Miller, Carlton, Tex.

FARM HELP.

A COMPETENT FARM HAND, THOR- oughly experienced and married, wants farm employment at any time. W. T. Graham, Colony, Okla.

A COMPETENT FARM HAND, THOR- oughly experienced and married, wants farm employment after Feb. 1st. Correspondence solicited from patriotic, church-going people. Lee Harmon, 922 Smithland Ave., La Junta, Colo.

MALE HELP WANTED.

WANTED—MARRIED MAN FOR GEN- eral farm and dairy work. C. E. Piepmeier, Akron, Colo.

MARRIED MAN WANTED TO WORK ON farm and stock raising—give reference. John Tatge, White City, Kan.

WANTED—MAN AND WIFE TO LIVE ON farm. Man to do farm work. Do not object to small family. C. W. Taylor, Abilene, Kan.

BLACKSMITH WANTED FOR SHOP owned by company. Steady employment year round. Garden City Sugar & Land Co., Garden City, Kan.

GENTLEMEN: MASON SOLD 18 SPRAY- ers and Auto-Washers one Saturday. Profits \$2.25 each. Square deal. Write Rusler Mfg. Co., Johnston, Ohio.

LANDS.

LAND ON CROP PAYMENT PLAN. JESS. Klsner, Garden City, Kan.

97 A. SALT FORK BOTTOM, 20 ALFALFA. Good improvements. Ida Conger, Whiteagle, Okla.

TRADES A SPECIALTY, THOUSANDS TO offer, send yours. Trader, 597 Brownell, Lincoln, Neb.

LIBERAL TERMS, QUARTER NEAR STA- tion, Rice county; rich soil, 5-room house, barn 32x44, cow barn, etc.; 1/2 70 a. wheat, 18 alfalfa. \$2,000 cash, balance 6%. Box 632, McPherson, Kansas.

FOR SALE: 620 STOCK FARM WELL IM- proved, well watered, 100 bottom, 100 wheat land, balance pasture, 5 acres under irrigation, \$35. 1/2 grain payments, discount for cash. J. L. Bashor, Russell, Kansas.

FARM AT PUBLIC SALE—185 1/2 ACRES, half mile west of Larned, Pawnee county. Well improved, desirable, productive. Immediate possession. Sale Tuesday, February 13, at 1:30. Fourth cash, balance 6 per cent. Charlotte Fudickar, Owner.

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence; Farm lands, \$11 to \$30 acre; irrigated lands, \$35 to \$50; Twenty years to pay; \$2,000 loan in improvements, or ready made farms. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 14 Ninth Avenue, Calgary, Alberta.

FARMS WANTED.

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

FOR SALE.

FOR SALE—POWER SPRAYER, CHEAP. O. J. Stoker, Hartford, Kan.

FOR SALE—HEDGE POSTS; CARLOTS. H. W. Porth, Winfield, Kan.

FOR SALE, HEDGE POSTS, CAR LOTS. D. C. Beatty, Lyndon, Kansas.

MOLASSES, SORGHUM MOLASSES FOR sale. 75c gallon. G. T. McDuffie, Mist, Ark.

FOR SALE—150 T. 25 BU. GREEN KAFIR ensilage. Good cottage. Plenty of good water. A. Bozarth, Liberal, Kan.

FOR SALE OR TRADE—20-4 CASE TRAC- tor plow outfit as good as new. Write for description. A. C. Bailey, Kinsley, Kan.

FOR SALE—12-24 WATERLOO BOY GAS tractor and 3 bottom Oliver engine gang, good as new, \$450.00. L. K. Landrus, Quinter, Kansas.

OR SALE OR TRADE—ROOMING OR duplex house, 26 rooms, brick, all modern, close in, price \$20,000. Also smaller house 10 rooms, brick, all modern, close in. Price \$7,000.00. 209 E. 7th, Topeka, Kansas.

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PATENTS OF MERIT CAN BE SOLD BY our system. For further particulars write American Investment Co., 900 F. St., Washington, D. C.

PATENTS SECURED OR FEE RETURNED. Books and advice free. Send sketch for free search. We help market your invention. A. M. Buck & Co., 532 7th St., Wash., D. C.

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WANTED NEW IDEAS—WRITE FOR LIST of Patent Buyers and Inventions Wanted. \$1,000,000 in prizes offered for inventions. Send Sketch for free opinion of patentability. Our Four Books sent free. Patents advertised free. We assist inventors to sell their inventions. Victor J. Evans Co., Patent Attys., 825 Ninth, Washington, D. C.

AUTOMOBILES.

FORDS START EASY IN COLD WEATHER if you use our 1918 carburetor. 34 miles per gallon guaranteed. One-third more power. Use cheapest gasoline or one-half kerosene. Quickly starts cold motor even at zero and moves right off with full power. No spitting or popping. Slow speed on high. Fits exactly. Attach it yourself. 30 off list where no agent. Big profits selling our goods. We fit all motors. Write for 30-day trial offer and money back guarantee. The Air-Friction Carburetor Company, 560 Madison St., Dayton, Ohio.

EDUCATIONAL.

KANSAS CITY BUSINESS COLLEGE, THE great business Training School of the great Southwest. For free catalog address C. T. Smith, 1029 McGee St., Kansas City, Mo.

LEARN SHORTHAND BY CORRESPOND- ence. Pitmanic System. Demand for stenographers greater than supply. Virginia School of Shorthand, Box 39, Roanoke, Va.

LIVESTOCK COMMISSION MERCHANTS.

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

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalogue on request. The Crosby Frisian Fur Co., Rochester, N. Y.

MISCELLANEOUS.

WANTED—CEMENT BLOCK MACHINE. I. D. Ingram, Downs, Kan.

CONTAGIOUS ABORTION PREVENTED by R. Harold, Manhattan, Kansas.

MR. LANDOWNER—IF YOU WANT A good live tenant write Chas. Inman, Moran, Kan.

READY-CUT HOUSES AND BARNs wholesale, mill prices. Plan book free. Keystone Lumber Company, Tacoma, Washington.

SAVE THE WHEAT—CORN MEAL GUIDE tells all about corn, how to cook. By Southern chef. Send 25 cts. today. The Corn Meal Guide, Lawrence, Kan.

LEAF TOBACCO—KENTUCKY'S BEST, for chewing or smoking, 3 yrs. old. 3 lbs. \$1.25 prepaid; 7 lbs. \$2.50. Special prices on large quantities. S. Rosenblatt, Hawesville, Ky.

PASTURE WANTED IN KANSAS FOR grazing-season of 1918. Give location, number of acres, how watered, shipping point and price. Address F. L. Merchant, 425 Livestock Exchange Bldg., Kansas City, Mo.

BETTER ROPE AT COST OF BINDER twine. Prohibitive prices on rope makes our machine pay for itself on one short rope. Makes any strand any length \$1.50. Berg Rope Making Machine Company, Madison, Minn.

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.

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.

Opinion in Labette County

I am a progressive and I realize the demand for a man like Governor Capper to represent Kansas in the Senate. The war has brought to a nearer realization the aims and purposes of a progressive government, and the many complex war problems call for a man like the governor.

I believe Osage township, Labette county, where I live, gave the governor the highest vote two years ago, and from present indications it will stand by him to put him in a higher place, where he can serve Kansas and put this state in the position it has always held in the councils of the nation.

We have appreciated Governor Capper's position in regard to the farmers and the food control. We are certainly in favor of pushing the war to a successful conclusion, but we ask for a fair deal. R. B. Edmonson. Route 4, Parsons, Kan.

A Big-Egg Family

A Barred Rock hen laid a 4-ounce egg during the State Poultry Federation show held at Topeka in December, 1914. A descendant of this hen has laid two such eggs in the last year. When Mr. Rigdon, the writer of these verses, presented Biddie's especial prodigy to the federation he at the same time told Biddie's excuse for not coming to the show.

Biddie's Excuse.

My name is just plain Biddie Rigdon. Now don't you think I've laid a big one? Such eggs as mine are seldom found. For four like this would weigh a pound. I tell you girls I've my suspicion. It's the largest egg on exhibition.

But if I were taken to the show. Some judge would say, "You are too slow. We don't like your barred clothes." Or criticize my comb and toes.

Come on you hens of any breed. That's fed on any kind of feed. Come lift my egg with block and tackle. And then stand back and hear me cackle. Topeka, Kan. —William L. Rigdon.

It is a good plan to set the tall plants at the sides of the windows with the smaller ones between. In this way all get an equal chance at the light.

Plowing kills wireworms by destroying their food supply and interfering with their preparations for winter.

Kill Grubs in Cattle

If the grubs which cause the lumps or swellings under the skin in the backs of cattle are allowed to remain, they will complete their growth, drop to the ground and transform to heel flies, which may reinfest the cattle during the spring and summer. The grubs weaken the cattle, cause them to fall off in flesh and milk, and decrease the value of the hide. The beef in the immediate vicinity of a grub becomes slimy and of a greenish color, and is known to the butcher as "licked beef." The damage to the hides usually is placed at one-third their value, and the loss of beef to an infested animal ranged from \$4 to \$6 in pre-war times. The cattle are also injured in the spring by the presence of the fly which causes them to fret and stampede. The grubs injure the hides and beef from January until June.

T. J. Talbert of the University of Missouri offers the following suggestions for eliminating warbles: The grubs may be pressed out thru the opening at the top of the swelling. A sharp knife and a pair of tweezers will often facilitate the work of removing the grubs. Care should be taken to crush all the grubs removed, to prevent their further development and transformation into flies. It is advisable to examine the cattle for lumps or swellings over the back every two or three weeks during the late winter and early spring in order to destroy the pest. Various oils are often used, which may be either smeared over the infested regions, or applied to the mouth of the breathing hole of the grub. One or two applications usually are sufficient.

The treatment may be given wild cattle by driving them thru a chute with a man on either side of the chute equipped with an oil can filled with kerosene, mercurial ointment or turpentine. As the cattle pass thru the hand is pressed over the backs of the animals and every lump or swelling is treated with the oil by inserting the slender nozzle of the can in the opening at the top of the lump.

Arsenical preparations and tobacco decoctions are often used as sprays or washes for the backs of cattle, but the greasing lotions and oil sprays usually are more effective because they are more penetrating.

The defects of the sow are as surely transmitted as are the strong points.

MONTANA The Judith Basin offers exceptional opportunities to the farmer, stockman and investor. Surpasses ordinary farming methods. Harvest every year—and once in awhile. No irrigation, splendid climate, excellent water, good markets. You can do better in the Judith Basin. Buy direct from the owners. Prices lowest; terms easiest. Free information and price sent on request. Address THE COOK-REYNOLDS CO., Box K-1405, Lewistown, Montana

FERTILE KANSAS LAND CHEAP

Those who located in Central Kansas 20 years ago are the big farmers today. Their land has made them independent.

Your chance now is in the five Southwestern Kansas counties adjacent to the Santa Fe's new line, where good land is still cheap.

With railroad facilities this country is developing fast. Farmers are making good profits on small investments. It is the place today for the man of moderate means.

Wheat, oats, barley, speltz, kafir and broom corn, milo and feterita grow abundantly in the Southwest counties referred to. Chickens, hogs, dairy cows and beef cattle increase your profits.

You can get 160 acres for \$200 to \$300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6 per cent—price \$10 to \$15 an acre.

Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy-purchase contract. Address

E. T. Cartledge, Santa Fe Land Improvement Co., 1891 Santa Fe Bldg., Topeka, Kan.

BIG BARGAINS IN REAL ESTATE

Dealers whose advertisements appear in this paper are reliable and bargains offered are worthy of consideration

Special Notice All advertising copy discontinuance, orders and change of copy intended for the Real Estate Department must reach this office by 10 o'clock Saturday morning, one week in advance of publication to be effective in that issue. All forms in this department of the paper close at that time and it is impossible to make any changes in the pages after they are electrotyped.

GOOD WHEAT SECTION, well located; will split; some in cultivation. \$25 per acre. Good terms. C. W. West, Spearville, Kan.

RANCH 1500 A. Part river bottom, improved, about 600 acres pasture, \$15 per acre. Terms. Box 364, Syracuse, Kan.

600 ACRES, well improved, lays good. Price \$50 per acre. Other farms for sale. John J. Wieland, Emporia, Kan.

A HIGHLY IMPROVED 160 A. FARM. 2 miles town. Price \$9800. E. H. Fast, Burlingame, Kan.

160 A. IMP., 4 MI. TOWN, \$85 A. 125 a., 1 mi. town, \$10,000. Triplett Land Co., Garnett, Kan.

320 A., 3 MI. TOWN, ALL IN GRASS. All level, no imp. Price \$7,000. Terms on part. H. J. Settle, Dighton, Kan.

4 SECTIONS of good ranch land in a body located about 11 mi. S. W. of Elkhart, Kan. \$10 a. Earl Taylor, Elkhart, Kan.

TWO 80 ACRES, imp. with possession and terms. Price at \$4500.00 and \$6800.00. Decker & Booth, Valley Falls, Kan.

290 ACRES, six room house, new barn, close to school and three towns. Possession March first. Price \$30 a. Easy terms. The King Realty Co., Scott City, Kan.

160 ACRES, well improved, abundance of water, 3 miles good town. Price \$9,000, good terms. Some good exchanges. Holcomb Realty Co., Garnett, Kan.

LANDS IN STEVENS and Morton Counties, Kansas, and Baca County, Colorado. Write us for prices. John A. Firmin & Co., Hugoton, Kan.

A SNAP. 160 acres level wheat land, 100 acres in cultivation, part terms, \$2100. 7 quarters all join, nearly all good plow land, 60 acres in wheat, 1/4 mi. school. \$11 an acre. C. N. Owen, Dighton, Kan.

60 A. IMP., ALL TILLABLE, \$45 a., \$800 down, bal. easy terms 6 per cent. 160 a. well imp., 2 1/2 town, 100 a. cult., 40 wheat goes, 40 pasture, 20 meadow-orchard, \$45 a. \$3,000 will handle. Limestone soil. P. H. Atchison, Waverly, Kan.

FOR SALE. All kinds of farms in Northeastern Kansas. Send for printed list. Silas D. Warner, 727 1/2 Commercial St., Atchison, Kan.

I HAVE A GOOD BUNCH OF FARMS AND RANCHES FOR SALE. If you have anything for sale list it with me. Write Guss Schimpff, Burns, Kan.

240 ACRES well located, smooth land, well divided for crops. 60 acres in wheat, 6 room cottage, good barn and other improvements. Write for descriptions of this or any size farm interested in. Large list of farm bargains to select from. Mansfield Land Co., Ottawa, Kan.

CHOICE QUARTER—\$2500.00 Only 5 miles S. W. Liberal. \$750 cash, bal. easy terms, 5%. No trades. No improvements. Get busy if you want this bargain. Write owners. Griffith & Baughman, Liberal, Kan.

160 Acres For \$1,000. Sumner County; good upland soil; improved; good water; pasture; meadow; wheat; farm land; poss.; only \$1000 cash; bal., \$500 year. Hurry. R. M. Mills, Schweiter Bldg., Wichita, Kan.

NESS COUNTY Good wheat and alfalfa lands at from \$15 to \$30 per acre. Also some fine stock ranches. Write for price list, county map and literature. Floyd & Floyd, Ness City, Kan.

320 Acres S. Comanche Co. 225 in wheat, 1/4 to buyer, 40 acres more tillable, balance good grass land. Well, windmill and fenced. \$1,000 cash, balance crops payment. Box 386, Coldwater, Kan.

320 A. Choice Stock & Grain Farm 70 acres wheat. Write for printed description; immediate possession if wanted. Also can give immediate possession of 120-150-30 a. farms. Possession of other farms March 1st. No matter what sized farm interested in, come at once. We have a choice list of the best bargains to be found in Eastern Kansas. Mansfield Land Company, Ottawa, Kansas.

SUMNER COUNTY The best part where wheat is as sure to make a crop as corn is in Illinois. A few choice farms for sale, possession this spring and wheat crop. Write for list. Wm. Hembrow, Caldwell, Kansas.

480 ACRES IMPROVED, 7 MILES ENSIGN, KAN. 4 mi. market, 360 a. in cult., 280 a. in wheat, all goes except 50 a. 90 a. spring ground, 120 a. pasture fenced. This is an extra good farm and will sell at \$35 per a. Owner, A. C. Hitz, St. John, Kan., E. R. No. 5.

8000 A. RANCH. 7500 a. grass, 2 mi. of spring water. All fenced, cross fenced, good ranch improvements. 1500 a. alfalfa land. 4 mi. town, main line R. R. \$15 a. Terms. F. H. Templeton, Spearville, Kan.

TWO NICE HOMES, close to Valley Falls, Kan., where the Meyers Milch Condenser is located. Good improvements and the best of soil. 220 a. at \$140 per acre. 240 a. at \$125 per acre. Good terms. Benj. J. Griffin, Valley Falls, Kan.

40 A., GOOD IMPROVEMENTS. PERMANENT WATER. 1/2 tillable, bal. timber and pasture, 4 1/2 miles town and R. R. S., 1 mi. public school and grange hall, 2 1/2 mi. church. \$60 a. J. Bond, Ozawkie, Kan.

200 A. 3 mi. of Waverly, good house, large barn, plenty water, 40 a. wheat, lays smooth, price \$70 per acre. \$5500 will handle. 320 a., 1 mi. of town, good improvements, 55 acres wheat, lays good, price \$45 per acre, good terms. Geo. M. Reynolds, Waverly, Kan.

175 A., 1/2 MI. AGRICOLA, 4 1/2 Waverly, 10 alfalfa, 20 clover, 20 blue grass pasture, 18 wheat goes. New house and barn, granary and crib, two chicken houses, two good wells, never failing. Will carry \$4,500, 6%, \$12,000. W. H. Lathrom, Waverly, Kan.

CHASE COUNTY stock farm. 282 acres, 5 mi. Elmdale, 1/4 mile school. Daily mail, telephone, good roads. 100 acres cultivated including 25 acres alfalfa, 20 acres wheat, 180 acres pasture, timber, creek. Fair improvements. No trades. Price \$15,000. J. E. Bocook & Son, Cottonwood Falls, Kan.

4320 ACRES northwest of Guymon, Texas Co., Okla. Every acre farm land. Price \$15 a., terms. Several good farms in Haskell county, Kansas. 1120 acre improved ranch with living water in Hamilton county, Kansas, for only \$12.56 per acre, terms. Clay McKibben Land Co., Dodge City, Kansas.

TWO 80 ACRE FARMS ON EASY PAYMENTS. Both of these farms located in Franklin county, Kansas. Both within 5 miles of good railroad towns, on the Santa Fe, both of them good, all tillable farms; fair improvements, \$65 per acre. \$1500 cash, long time on rest at 6%. Possession March 1st. Casida & Clark, Ottawa, Kansas.

680 ACRES WELL IMPROVED, 2 1/2 miles of town, accredited high school, 1/2 mile of country school. R. F. D. and phone, 260 acres wheat all goes, half under cultivation, all tillable, best of soil, inexhaustible supply good soft water, new 5 room house with 28 ft. square basement, out door cave with underground entrance to out door, arched cave, two good granaries, windmill, chicken house, wash house, good barn, 28x40 with loft, nearly all under fence, in good neighborhood, price \$25.00 per acre, easy terms or might take good quarter section as part pay in Central or Southern Kan., bal long time. Box 141, Utica, Kansas.

MISSOURI

SMOOTH 32 A. FARM, POLK CO., MO. B. Anderson, Blue Mound, Kan.

STOP, LISTEN! 160 acre valley farm \$2500, terms, free list. McGrath, Mountain View, Missouri.

SPECIAL BARGAINS, good investment on farms for sale. Write for free list. Terms to suit. J. H. Engelking, Diggins, Mo.

FOR STOCK and grain farms in Southwest Missouri and pure spring water, write, J. E. Loy, Flemington, Missouri.

CASS COUNTY, 85 acres adjoining Harrisonville, best high school in state, good improvements. Bargain at \$10,000. Terms. Charles Bird, Harrisonville, Mo.

GREAT BARGAINS—\$5 down, \$5 monthly, buys 40 acres, grain, fruit, poultry land, near town, some timber. Price only \$200. Other bargains. Box 282-X, Springfield, Mo.

280 A., 10 MI. COUNTY (SEAT). 200 a. cultivated, bal. timber pasture, 150 a. valley, R. F. D. and school. Abundant water. Two improvements. \$40 per a., terms. John W. Goff, Willow Springs, Mo.

126 A. HIGHLY IMP., 100 cult., bal. pasture and timber, black valley land, spring and well, 4 miles town, \$47.50. 300 a., highly imp., 225 cult., bal. pasture and timber, black limestone, abundance living water, \$40 a. Terms. E. L. Fresson, Bolivar, Mo.

20 A. IMP., fruits of all kinds, 1 1/2 mi. town, \$3,000. Very desirable. 280 a. well imp., 125 cult., 100 a. bottom, bal. pasture and timber, living water. If sold soon \$25 a. Four miles town. 110 a. imp., 50 cult., bal. timber and pasture, living water, \$25 a. Terms. Exchanges made. Have farms to suit every one. R. J. Frisbee, Mt. Grove, Mo.

OKLAHOMA

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

FOR SALE. Good farm and grazing lands in Northeastern Oklahoma. Write for price list and literature. W. C. Wood, Nowata, Oklahoma.

1150 A. adjoining R. R. town this county, 400 a. tillable, 150 a. cult., bal. pasture, good imp. \$11 per acre. Terms. Southern Realty Co., McAlester, Okla.

OKLAHOMA: What farms for sale. Well improved, smooth upland or bottom farms, in best farming section of Oklahoma; also in the oil belt. Price \$50 to \$100 per acre. Write or call on J. E. Sparks, Billings, Okla.

COLORADO

BARGAIN—320 ACRE FARM \$20,000. Chas. Leuenberger, Colorado Springs, Colo.

Irrigated Lands Under

Twin Lakes Land and Water Co. System. Crops raised include large yields wheat, oats, corn, alfalfa, sugar beets, cucumbers, potatoes, squash, pumpkins, cantaloupes, melons, tomatoes, onions, apples and cherries. Cattle, sheep and hog raising very profitable. Market facilities admirable. Land one to four miles from shipping station. Beet sugar factory, alfalfa mills, pickling plants, canning factory and creamery at Crowley and Ordway, Colo. Electric light and power. Pure spring water available for farm use. Churches of all denominations; good schools and roads. For special excursion rates, prices, terms and free booklet, write me. First Nat'l Bank Bldg., Pueblo, Colo. F. O. Talmadge, Twin Lakes Land & Water Co.

ARKANSAS

160 ACRES OF LAND AT \$2 PER ACRE. Ark. Investment Co., Leslie, Ark.

220 ACRES well improved, bottom farm, 2 1/2 miles good railroad town, 1/4 mile good school. R.F.D. A real value. Price \$8,000, easy terms. J. M. Doyel, Mountainburg, Ark.

BENTON CO., best place. We have health, water, white people, no swamps. Tell wants first letter. Land \$10 up. Box 55, Pea Ridge, Ark.

160 ACRES 5 miles Leslie, 40 acres cultivation, good improvements, good water, orchard, 140 acres can be farmed. \$1800, terms. Wallace Realty Co., Leslie, Ark.

NEBRASKA

FOR SALE. Grain farms and stock ranches, 160 to 5000 acres. E. D. Drullner, Benkelman, Nebraska.

WISCONSIN

30,000 ACRES our own cut over lands. Good soil, plenty rain. Write us for special prices and terms to settlers. Brown Bros. Lumber Co., Rhinelander, Wis.

FARM LANDS

PRODUCTIVE LANDS. Crop payment on easy terms. Along the Northern Pac. Ry in Minnesota, North Dakota, Montana, Idaho, Washington, Oregon. Free literature. Say what states interest you. L. J. Bricker, 81 Northern Pacific Ry., St. Paul, Minn.

SALE OR EXCHANGE

MISSOURI FARMS FOR SALE and trade. Stephens & Brown, Mt. Grove, Mo.

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

TRADES EVERYWHERE, book free. See us before buying. Bersie, El Dorado, Kan.

OZARKS OF MO., farms and timber land, sale or ex. Avery & Stephens, Mansfield, Mo.

40 A. TANEY CO., MO., for western land, or live stock. Is clear, \$1,000. E. W. Moore, Spearville, Kan.

FOR illustrated booklet of good land in southeastern Kansas for sale or trade write Allen County Investment Co., Iola, Kan.

2000 ACRES nice level wheat land; well located for farming or ranching. Will divide. Owner take income property or merchandise, \$15.00 a. Mortgage \$5000, 6%, 5 years. Box 222, Garden City, Kansas.

60 ACRES, IMPROVED; 4 mi. N. E. Siloam Springs. All tillable, 700 apple, 50 pear, 100 peach, 50 cherry trees. \$5,000.00. Merchandise or clear residence. E. J. Jasper, Council Grove, Kan.

IMPROVED half section, 10 miles Ogallah, Kansas. 50 acres can be plowed, balance rather rough but good pasture. Price \$25 per acre. Mortgage \$2500. Trade equity for grocery stock, residence or suburban property, clear. Western Real Estate Co., Ellis, Kan.

240 ACRES 7 miles from Pratt, 200 acres in cultivation, 140 acres wheat, 10 acres alfalfa, 5 room house, good barn and outbuildings. Your opportunity. \$14,000.00. 160 acres to exchange for merchandise. Write us The Pratt Abstract and Inv. Co., Pratt, Kan.

HIGH CLASS FLATS

Owner of two high class flats in Kansas City, Mo., wishes to exchange same for a farm. Price of flats \$65,000.00, incumbrances \$22,000.00. Flats are almost new, in best of condition and A. I. 6 apartments each and high class property. Owner has two boys that he wants to get on a farm. Will consider a good farm. H. Clay Bowsher, 4025 Central St., Kansas City, Mo.

FOR EXCHANGE IN JACKSON COUNTY TEXAS, RAIN BELT.

No zero weather. Gulf breezes cure Catarrh and relieve Rheumatism. One thousand acres of splendid land, with fifty acres in cultivation, small house, extra fine well, and mill, fenced and cross fenced, will exchange for Kansas or Nebraska farm. Our land is clear, will assume as much as ten thousand dollars. Owner is aged, lives near Kansas and Nebraska line, boy in the army reason for exchanging. For full particulars, address Scott & Sons, Fiscal Agents, Edna, Texas.

WHAT BREEDERS ARE DOING

FRANK HOWARD, Manager Livestock Department.

FIELDMEN.

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

PUREBRED STOCK SALES.

Claim dates for public sales will be published free when such sales are to be advertised in the Farmers Mail and Breeze. Otherwise they will be charged for at regular rates.

Combination Sales.

Feb. 25 to Mar. 2—F. S. Kirk, Mgr., Wichita, Kan.

Jacks, Jennets and Stallions.

Feb. 21—Cornelius McNulty, Morrowville, Kan. At Concordia, Kan. March 4—Bradley Bros., Warrensburg, Mo. March 14—G. M. Scott, Rea, Mo., sale at Savannah, Mo. Mar. 26—H. T. Hineman, Dighton, Kan.

Percheron Horses.

Feb. 26—Geo. S. Hamaker, Pawnee City, Neb. March 9—Mitchell County Percheron Breeders, Beloit, Kan.

Draft Horses.

Feb. 28 and Mar. 1—Nebraska Horse Breeders' Assn., sale, Grand Island, Neb. C. F. Way, Lincoln, Neb., Manager. March 8-9—W. T. Judy & Sons, Kearney, Neb.

Aberdeen Angus Cattle.

Feb. 21—Aberdeen Angus Breeders' Association of Nebraska. Sale at Grand Island, Neb. D. K. Robertson, Madison, Neb. Mgr. Apr. 5—Wm. Palmer, Liberty, Neb. April 9—Carroll Co. Breeders' and Feeders' Association, Carrollton, Mo.

Hereford Cattle.

March 2—J. A. Southard, Comiskey, Kan. Holstein Cattle.

Feb. 21—Lee Bros. & Cook, Harveyville, Kan. Feb. 25—Warren Neff, Glen Elder, Kan. Feb. 27—W. O. Morrill, Summerfield, Kan. Mar. 20—E. J. Dixon and Chas. A. Smedley, Agra, Kan. Mar. 26—Kansas State Holstein Breeders' sale at Topeka Fair Grounds, W. H. Mott, Sec., Herington, Kan.

Polled Durham Cattle.

March 8-9—W. T. Judy & Sons, Kearney, Neb. Mar. 28-29—Combination sale, So. Omaha, Neb. H. C. McKelvie, Mgr., Lincoln, Neb. April 10—T. M. Willson, Lebanon, Kan.

Shorthorn Cattle.

March 5—K. F. Dietsch, Orleans, Neb. March 7—Frank Uhlig, Falls City, Neb. Mar. 26-27—Combination sale, So. Omaha, Neb. H. C. McKelvie, Mgr., Lincoln, Neb. APR. 2—J. R. Whisler, Watonga, Okla. Sale at Oklahoma City. April 2—Blank Bros. & Klean, Franklin, Neb. Sale at Hastings, Neb. Apr. 3-4—Highline Shorthorn Breeders' Association, Farnam, Neb. E. W. Crossgrove, Mgr. April 6—Thomas Andrews, Cambridge, Neb., and A. C. Shellenberger, Alma, Neb. Sale at Cambridge.

Duroc Jersey Hogs.

Feb. 18—Combination sale, W. W. Jones, Mgr., Clay Center, Kan. Feb. 18—Robt. E. Steele, Falls City, Neb. Feb. 19—Howell Bros., Herkimer, Kan. Feb. 19—John C. Simon, Humboldt, Neb. Feb. 20—W. T. McBride, Parker, Kan. Feb. 20—Milton Poland, Sabetha, Kan. Feb. 21—Adolf Anderson, Davenport, Neb. Feb. 21—Gilliam & Brown, Waverly, Neb. Feb. 22—E. P. Flanagan, Chapman, Kan. Feb. 26—Henry Wernimont, Oklawaha, Neb. March 2—O. E. Easton, Alma, Neb. Mar. 7—Otey-Wooddell, Winfield, Kan. Mar. 8—G. C. Norman, Winfield, Kan. March 8-9—W. T. Judy & Sons, Kearney, Neb. Apr. 24—Laptad Stock Farm, Lawrence, Kan. Poland China Hogs. Feb. 20—Bert E. Hodson, Ashland, Kan. Sale at Wichita, Kan. Feb. 21—A. J. Erhart & Sons, Ness City, Kan. At Hutchinson, Kan. Feb. 22—Oliver & Sons, Danville, Kan. Feb. 25—O. E. Wade, Rising City, Neb. Feb. 26—Homer Souders, Chetopa, Kan. Feb. 26—Geo. S. Hamaker, Pawnee City, Neb. Feb. 28—Clarence Dean, Weston, Mo. Sale at Dearborn, Mo. March 1—Beall & Wissell, Roca, Neb. March 2—John L. Naiman, Alexandria, Neb. Mar. 6—J. R. Young, Richards, Mo. Mar. 8—Engleman Stock Farms, Fredonia, Kan. March 8-9—W. T. Judy & Sons, Kearney, Neb. March 15—H. E. Myers, Gardner, Kan. April 10—T. M. Willson, Lebanon, Kan. pr. 24—Laptad Stock Farm, Lawrence, Kan.

S. W. Kansas and Oklahoma

BY A. B. HUNTER.

W. W. Zink of Turon, Kan., whose Duroc sale was held at Turon, January 31, drew the coldest day of the year and in consequence practically the entire sale was made by his neighbor buyers. Thirty-four head sold for \$2,620, an average of \$77. The top was \$116.—Advertisement.

Shorthorn Sale, Oklahoma City, March 5. One of the important events in connection with the Southwestern Livestock Show and Sale at Oklahoma City, March 3 to 9, will be the public sale of Shorthorn cattle to be held on Tuesday, March 5. The offering will include 40 females and 20 bulls, including some of the very best Scotch breeding in the country. Many of the cows in the offering will have calves at foot by the best bulls of the breed. A special attraction is the cow Eunice, consigned by Joe Grimes of Kingfisher, Okla. She will sell with a white calf at foot, sired by Fair Acres Sultan. Eunice's last year's calf sold for \$1,350 at 6 weeks old. Some of the other cows in the sale are Roan Sampy, bred by C. E. Leonard, Bunceon, Mo., with white heifer calf at foot sired by Imp. Proud Emblem; Bashful Calla, by Dale's Mistletoe Archer, in calf to Whitehall Memory; Primrose 11th, with cow calf at foot

by Woodlawn Villager, and rebred to the same bull. This sale will be a mighty good opportunity both for the breeder and the farmer. For catalogs and any further information, in regard to the offering, address H. C. Lookabaugh, Watonga, Okla. Please mention Farmers Mail and Breeze.—Advertisement.

N. Kansas, S. Nebr. and Ia.

BY JOHN W. JOHNSON.

Look up Meall Brothers' Shorthorn advertisement in this issue and write them for prices on bulls and the nice lot of bred cows and the herd bull they are offering. This advertisement will not appear often. Write now if you are interested.—Advertisement.

This is the last call for the Warren S. Neff Holstein sale at Glen Elder, Kan. The sale will be held at the farm near Glen Elder, Kan., Mitchell county. Look up the advertisement in this issue. One of the greatest herd bulls of the breed will be sold in this sale. It is a clean up sale and everything is going to sell. The sale is February 25.—Advertisement.

Carl F. Smith, Cleburne, Kan., Riley county, is advertising in this issue of the Farmers Mail and Breeze 30 Spotted Poland China September and October pigs. He can furnish them in pairs or trios not related and they are certainly fine. They are well grown and set out of mature sows and choice boars. Fair prices on them for a short time.—Advertisement.

This is the last call for Milton Poland's big Duroc Jersey bred sow sale which will be held in the sale pavilion, Sabetha, Kan., February 20. Write for the catalog today. It is an offering of 50 choice sows and gilts that will please you. Best of breeding and individual merit characterizes this sale. Write at once for catalog and attend the sale.—Advertisement.

W. J. Harrison, Axtell, Kan., starts his advertisement in this issue of the Farmers Mail and Breeze and offers Duroc Jersey bred gilts for sale. The breeding is up to date. Write him for prices and descriptions. One of Mr. Harrison's boars is by Grand Model 8th, first prize boar at the Iowa State Fair last fall. Another is Invader of Idlewild. Fair prices will be made to move these gilts before the farrowing season sets in.—Advertisement.

This is the last call for the combination sale of Duroc Jersey bred sows to be held in the sale pavilion, Clay Center, Kan., Monday, February 19. The evening of this sale a state Duroc Jersey breeders' association will be organized at a smoker to be given at the Bonham hotel. W. W. Jones, Clay Center, Kan., is the sales manager. Come to the sale and stay for the smoker and help organize this association.—Advertisement.

McNulty's Jack Dispersion.

This is the last call for Cornelius McNulty's big jack and jennet dispersion sale at Concordia, Kan. Ten Mammoth jacks and 15 bred jennets. It is your big opportunity to buy jacks and jennets at a low price in a dispersion sale. The sale is next Thursday, February 21, in the sale pavilion, Concordia, Kan.—Advertisement.

Last Call Flanagan's Sale.

This is the last call for E. P. Flanagan's big sale of Duroc Jersey bred sows and gilts at his farm near Chapman, Kan., and Alida, Kan. Breeders from a distance will be met at both places. Fifty head will be sold and they are certainly right in every particular. The advertisement appears in this issue. Look it up and write for the catalog. You still have time to get it if you act at once. These are the big kind and are sure to suit you. Look up the advertisement in this issue.—Advertisement.

Morrill's Holstein Dispersion.

Wednesday, February 27, is the date of the W. O. Morrill dispersion sale of registered Holsteins at Summerfield, Kan. The Collins Farm company, Sabetha, Kan., is listing a fine yearling bull out of an A. R. O. cow. The Nemaha Valley Stock Farm, Seneca, Kan. are consigning four registered cows and a 2-year-old bull. The Morrills are closing out and altogether it is an offering worthy of your consideration if you want to buy something choice to put in your herd. Look up the advertisement and write for the catalog which is now ready to mail.—Advertisement.

Good Durocs at Private Sale.

F. A. Moser, Goff, Kan., is advertising 20 September and October pigs at private sale. These young boars and gilts are of the very best breeding and out of Mr. Moser's big profit herd sows and sired by his well known herd boars. He desires to sell them before his crop of spring pigs commences to arrive and will make close prices on them. Recently he purchased in the Hanks & Bishop sale the great sow, Big Lizzie, for which he paid \$806. She was sired by Proud Col, and bred to old Pathfinder. She farrowed last week and of the 17 piglets she is raising 16. Write him about a trio of these fat pigs advertised in this issue.—Advertisement.

Last Call Howell Brothers' Sale.

This is the last call for Howell Brothers' big Duroc Jersey bred sow sale to be held at their farm (old Toodle ranch), Herkimer, Kan., Marshall county, Tuesday, February 19. This is the day following the combination sale at Clay Center, Kan., at which time a state breeders' association will be

JACKS AND JENNETS.

Stallions and Jacks 40 Percheron stallions and mares from weanlings up. 20 big boned Mammoth Jacks, 10 fine jennets at reasonable prices. Al E. Smith, Lawrence, Kan.

JACKS, JENNETS, PERCHERONS Four good jacks, one good Percheron stallion, all registered or eligible. Two good jennets. Priced right. ALFRED LOCKWOOD, Mound City, Kans.



FOR SALE One black jack with white points sixteen hands high, weight eleven hundred, quick service. One black stallion, weight eighteen hundred, lots of bone. Two daughters of lasino, one with foal. One weanling stud, three jennets, black with white points 15 1/2 hands high. The above is all registered and sound. Priced to sell. T. J. Larkins, Gibbon, Oklahoma.

300 REGISTERED SHROPSHIRE SHEEP, 300

We have for sale an extra nice lot 35 coming one-year-old rams \$30. 100 large, coming yearling ewes, mostly bred, \$30. 125 good aged ewes, no old ones \$35. We crate and pay express to your station on all sheep. They are all registered, large and well woolled.—Send draft for what you want. Reference, Harveyville State Bank. J. R. TURNER & SON, HARVEYVILLE, KANSAS.

JACKS AND JENNETS. I SWAP FOR

Jacks and Stallions. What have you? J. F. FINCH, GAYLORD, KANSAS

Jacks, Jennys and Percherons Four good Jacks and four good Percheron Stallions of breeding age; also a number of extra good Jennys. Priced to sell. M. G. BIGHAM & SON, OZAWKIE, KAN., 20 MI. N.E. Topeka

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs. well broke to serve. Several fine herd headers among them. Also jennets in foal to home bred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on J. P. & M. E. MALONE, CHASE, KAN.

REGISTERED BIG BONED BLACK JACKS

The jack buying season again finds us with a big assortment of good mule jacks, herd headers and prize winners; in other words jacks for everybody. Prices and terms right. Every animal guaranteed as represented. Come now. Kingfisher Valley Jack Farm J. H. Smith & Sons, Props., Kingfisher, Okla.

MAMMOTH JACKS

40 jacks and jennets, 3 to 7 years old. Big boned, young jacks, broke to service. A good assortment from which to select. Marked down to rock bottom prices. Philip Walker, MOLINE, ELK COUNTY, KANSAS

HORSES.

For Sale—FRENCH DRAFT STALLION coming 3 years old, weight 1750 pounds. Priced for quick sale. John P. Johnson, R. 2, McPherson, Kan.

For Sale Purebred Morgan stallion, five years old, weight 1325 pounds. Has lots of style and action. FRED SKINNER, MEADE, KANSAS

50—Registered Stallions—50 30 Belgians. Biggest collection in the West. Also Percherons and Shires. One to five years old, mostly out of imported sires and dams. Barn in town. M. T. BERNARD, GRAND ISLAND, NEBRASKA

Percherons—Belgians—Shires 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world. FRED CHANDLER, Route 7, Chariton, Iowa. Above Kan. City.

FOR SALE TWO REGISTERED PERCHERON STALLIONS, coming 2 years old in March. Large growthy fellows, Casino breeding. One pair Registered Mares. One pair registered fillies. Farmer's prices. Cottonwood Stock Farm, Rock Island Highway, 1 MI. west of Clayton, Kan.

I will sell at Public Sale, at my place, 10 miles northeast of Topeka and 2 1/2 miles due west of Meriden, on

TUESDAY, FEBRUARY 19, 1918

The following described property: 1 Black Imported Stallion, 10 yrs. old, Wt. 1900. 1 Grey American-bred Stallion, 7 yrs. old, Wt. 2000. 1 Black Stallion, 2 yrs. old, Wt. 1400. 1 Black Mare, 14 yrs. old, in foal, Wt. 1700. (Papers furnished for each animal on sale day.) 1 Black Mare, 5 yrs. old, in foal, Wt. 1900. 1 Black Mare, 3 yrs. old, in foal, Wt. 1650. 2 Fillies, extra good, coming 1 yr. old. 1 Grade Gelding, 2 yrs. old, extra good. FRED DAUBER, ROUTE 2, MERIDEN, KANSAS

Percheron Mares and Stallions

—30 Head From Which To Select—

Ton mares, big handsome fillies either by or bred to Algrave by Samson. Algrave's colts have great bone and size. His weight is over 2,200 pounds and his get proves beyond doubt his great ability as a sire. A nice lot of young stallions, several coming three year olds. Priced for quick sale. Farm 4 miles east of town. Call on or write

D. A. HARRIS, R. 6, GREAT BEND, KANSAS

ROBISON'S Percherons

See my exhibit at Wichita Live Stock Show

30 stallions and mares consigned to the sale in Forum, Wichita, Kan., Mar. 2nd.

J. C. ROBISON, TOWANDA, KANSAS

HORSES.

Pleasant View Stock Farm For sale: two yearling registered Percheron stallions, weight 1600 lbs. each. Priced right. HALLORAN & GAMBRIEL, OTTAWA, KAN.

FOR SALE OR TRADE Two American saddle-bred stallions, registered; also three mares. Write JNO. O. EVANS, Ash Grove, Kan.

Two Percheron Stallions black and grey, each weighs over a ton in good shape. Also one good jack. All sure breeders. TERMIN CROSE, STILWELL, KANSAS

For Sale—Two Jet Black Stallions 2 and 3 years old. Quality Percherons. Flitted for service. C. E. WHITTLESEY, Mound Valley, Kan.

FOR SALE OR TRADE Registered French Draft Stallion, 8 years old, weight 1850 pounds, dapple grey, extra heavy bone, extra good breeder, and sure, kind disposition. Will trade for young stock. J. W. LOCK, BURLINGTON, KANSAS.

FOR SALE One Black French Draft Stallion Six years old, and a good one. Sell right. FRANK LINDSTROM, MARQUETTE KAN.

For Sale—One Registered Percheron stallion, 4 years old; one registered Black Jack with white points, 6 years old; one registered 2-year-old Aberdeen Angus bull. All good breeders. ROBT. W. MILLER, Nekoma, (Rush Co.) Kansas.

Must Sell by March 1st

Dark Bay Percheron Stallion, reg. P. S. of A., coming five, ton horse, sound, sure and right every way. Mammoth Jack, black, white points, 4 years, 15-3, good performer and very sure. Standard bred stallion, 8 year, black, weight 1100, an excellent breeder. Prices very low for cash or would consider small tract of land of equal value. JOHN STEWART, ELMDALE, KANSAS

Riley County Breeding Farm

Headed by the Grand Champion Jean 76167, 80555. Sired by the \$40,000 Champion Carnot. Scarcity of help forces me to reduce my herd. Offering for sale my old herd horse Cassimir 35833, by Casino. (Casimir was the Grand Champion colt at St. Louis World's Fair.) Cavalier 94639, black, 5 years old, weight 1900 lbs., sound, 2 stallions coming 3 years old and some young fillies. 2 five-year-old jacks, 1 will weigh 1200 pounds. ED. NICKELSON, LEONARDVILLE, KAN. (Riley Co.)

WOODS BROS. CO., LINCOLN, NEBR.,

Imported and Home-Bred Percherons, Belgians and Shires

75 young stallions of the three breeds—coming 2, 3 and 4 years old and a few older horses. We have never had such a collection of real drafters.

Come and make your choice. Our prices, terms, and guarantee will suit you. Barns opposite State Farm. A. P. COON, MANAGER



LIVESTOCK AUCTIONEERS.

John D. Snyder, Hutchinson, Kan. 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.

CHESTER WHITE AND O. I. O. HOGS.

CHESTER WHITE HOGS Five good smooth spring boars for E. E. SMILEY, PERTH, KANSAS.

I must close out my entire herd of Chester Whites if you want a good tried sow or herd boar write me at once. Also summer boars and gilts. F. C. GOOKIN, RUSSELL, KANSAS.

For Sale—Registered Bred Chester White Gilts G. A. STERBENZ, OSAWATOMIE, KAN.

KANSAS HERD CHESTER WHITES
Bred sow sale. Fifty head, February 2nd. Leavenworth, Kansas. Heated Building. Send for catalog.

Arthur Mosse, Mgr., Route 5, Leavenworth, Kansas 100 fall pigs.

CLINTON COUNTY CHESTERS
Special prices on 15 outstanding spring boars and fall weanlings of either sex. Every one carrying the blood of state and national swine show champions. J. H. McANAW, CAMERON, MISSOURI

DUROC JERSEY HOGS.

GARRETT'S DUROCS Bred gilts and fall pigs special prices on Sept. male pigs with up to date breeding. R. T. & W. J. GARRETT, STEELE CITY, NEB.

Sept. and Oct. Boars and Gilts
20 Duroc Jersey boars and gilts of top breeding. Good individuals. I want to move them before my spring pigs arrive. F. J. MOSER, GOFF, KANSAS

Duroc Bred Gilts

Spring gilts bred to farrow this spring. Popular breeding. Farmers prices. Write at once. W. J. HARRISON, AXTELL, KANSAS

Trumbo's Durocs

Bred Gilts, bred to Constructor Jr., First Prize boar pig Kansas State Fair, 1917; also a few June Boars, all immune. Satisfaction guaranteed. W. W. TRUMBO, PEABODY, KAN.

IMMUNE RECORDED DUROC GILTS
with size, bone and stretch, guaranteed in farrow. Shipped to you before you pay. F. C. CROCKER, BOX B, FILLEY, NEBRASKA

BONNIE VIEW STOCK FARM
DUROC-JERSEYS
Bred gilts and service boars, prize winning blood, for sale at reasonable prices. SEARLE & COTTE, BERRYTON, KANSAS

DUROC BOARS

Sired by the Famous Otey's Dream and the great All Col. 2nd. Can fit the farmer and the biggest breeder in quality and prices. Write today for prices. W. W. OTEY & SONS, WINFIELD, KANSAS

Wooddell's Durocs
20 March and April boars ready for service. They are sons of Crimson Wonder IV, and out of large, roomy sows of fashionable breeding. Priced for quick sale. All immune and guaranteed. G. B. WOODDELL, WINFIELD, KAN.

Durocs of Size and Quality
Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on bred gilts and boars, from Golden Model and Critic Breeding. JOHN A. REED & SONS, LYONS, KANSAS.

Duroc-Jerseys
Johnson Workman, Russell, Kansas

DUROC BOARS
Sired by Illustrator's Climax. Sows bred to same. Gilts bred to Gano. WOODS DUROC FARM, WAMEGO, KAN.

Jones Sells On Approval
All spring gilts reserved for Public Sale February 18. Get your name on our mailing list for catalog. W. W. JONES, CLAY CENTER, KAN.

Bancroft's Durocs
September boars and gilts guaranteed immune; also my herd boar D. O.'s Critic, No. 185197, farrowed March 2, 1915, weighs 770 pounds in every day breeding shape. Easy a 1,000-pound boar in show condition. D. O. BANCROFT, OSBORNE, KANSAS

DUROC-JERSEY BRED SOWS
15 choice bred sows and gilts, bred to Col. A. Gano and Pathmaker, a son of Pathfinder. Sired by Col. A. Gano and other good sires. Nothing but the best sent out on orders. We ship on approval to responsible parties. Write for price, description and any other information desired. Also a few fall boars. C. B. CLARK, Thompson, (Jefferson Co.), Nebr.

organized at a smoker to be held at the Bonham hotel the evening of the Clay Center sale and the night before the Howell Brothers sale. Good railroad connection from Clay Center to Marietta, which is on the Manhattan-Lincoln branch of the Union Pacific. Howells sell 45 head and no better offering has been made in the state this season. Get ready and come to this sale. Come to Marietta via Manhattan. If you come the night before stop at Marysville. Send bids to J. W. Johnson, care Howell Brothers, Herkimer, Kan.—Advertisement.

Southard Sells Herefords March 2.

An announcement of extraordinary interest to Hereford breeders generally, and especially to those who are planning to make a start in this breed of cattle, is that of the sale which will be held by J. A. Southard of Comiskey, Kan., on Saturday, March 2. This sale will be held in the big modern sale pavilion which is a part of the equipment of the Southard farm, near Comiskey. The offering will consist of 125 head of the best Herefords ever sold on the Southard farm. There will be 100 cows and heifers, bred to the Southard herd bulls. Their bull offering will include 25 extra good bulls of serviceable age, and in addition to this Mr. Southard will sell his herd bulls, King Farmer, Overton Fairfax and Uby's Monarch. Send your name to Mr. Southard today and ask him to send you a copy of the catalog which will be ready for distribution in the near future. Please mention Farmers Mail and Breeze in your letter.—Advertisement.

Lee Bros. & Cook's Holstein Sale, Feb. 21.

This is the last call for Lee Brothers & Cook's big sale of 150 Holsteins at Harveyville, Kan. (Blue Ribbon Stock Farms) Thursday, February 21. The sale is of great importance to dairymen and farmers wanting cows and heifers ready to make money with. One hundred head of cows and heifers that are just fresh or that will be soon after the sale are the big attractions in this sale. Besides there are 10 bulls, registered, and most of them ready for hard service, 25 choice heifers that will be fresh this spring and 15 extra fine heifers that will be sold open. You still have time to write for the catalog and other information. Come to Topeka on a night train and go to Harveyville at 10:25 the morning of the sale, returning in the evening. Burlington is near Harveyville and you can go from there to Harveyville at noon. But come early if you can and have plenty of time to look this splendid offering over. It will bear inspection.—Advertisement.

Moser's Durocs Averaged \$75.30.

F. J. Moser's annual Duroc Jersey bred sow sale at Sabetha, Kan., last Thursday came off as advertised in the Farmers Mail and Breeze. Forty head sold for an average of \$75.30. The top was number one which went to J. A. Beckenstette, Fairview, Kan., for \$200. She was a tried sow by Fancy Pal and bred to High View Chief's Col. for last of March farrow. A nice lot of breeders were present and a good attendance of farmers. "Fern" Moser enjoys the confidence of every man and boy that knows him and has made a host of friends in the Duroc Jersey breeding business by his fair dealing and willingness to do the right thing every time. Mr. Moser lives about half way between Goff and Sabetha and gets his mail at Goff, Kan. He is one of the best buyers of top breeding animals in the West and has made several good buys this season, among them Big Lizzie by Proud Col. and bred to the great Pathfinder. She farrowed recently 17 pigs and is saving a nice number of them. He has a number of nice fall boars and gilts at popular prices to move them before March 1.—Advertisement.

\$510 Top for T. F. Walker & Sons.

Thos. F. Walker & Sons' seventeenth annual Poland China bred sow sale at the farm near Alexandria, Neb., and in their big modern \$3,500 sale pavilion last Tuesday, was well attended by breeders from over several states. Sixty-one head sold for nearly \$11,000 and averaged \$177.50. The big smooth fall gilts by Blue Valley were much sought after by the breeders present. The top was \$510 for number nine, a Blue Valley fall gilt. Willis & Blough, Emporia, Kan., bought several around the top. It was an offering long to be remembered by those who were present. The Tom Walker stamp was upon every animal sold and buyers that have been buying in these sales for years were the ones that were more anxious to secure the sows and gilts in this sale. Good auctioneers were employed as usual and the sale had been well advertised. But it was the outstanding worth of the offering that made for the success of this sale. Mr. Walker's ability to mate, feed and develop a sale offering of bred sows that prove money makers in the hands of their purchasers is making his sales each season more popular. Every buyer left his check for what he bought and went away happy.—Advertisement.

Nebraska and Iowa

BY JESSE R. JOHNSON.

C. B. Clark, Duroc Jersey breeder, located at Thompson, Neb., has for sale about 15 Duroc Jersey bred sows and gilts, at private treaty. They are good individuals, mostly sired by the great breeding boar, Col. A. Gano, one of the very best sons of old Col. Gano. A few were sired by Uneda Surprise by Col. Uneda. Most of the gilts and sows offered are bred to a splendid son of the great boar Pathfinder. These sows will be shipped on approval to responsible parties.—Advertisement.

Nebraska Aberdeen Angus Sale.

Fifteen of Nebraska's best Aberdeen Angus breeders join in a combination sale to be held at Grand Island, Neb., on March 21. This will be a great offering and an unusual opportunity for breeders and farmers that love this great beef breed. There will be a splendid selection of real herd bulls, and cows and heifers good enough to go into any herd in America. Col. Ed Snell of Cambridge, Neb., will be the auctioneer. Interested parties should write at once for catalog and mention Farmers Mail and Breeze.—Advertisement.

Bernard has Fifty Stallions.

M. T. Bernard of Grand Island, Neb., has for sale 50 head of young stallions that range in age from 1 to 5 years old, good heavy boned individuals, nearly all out of imported sires and dams. Thirty head of them are Belgians, the finest and largest collection of Belgian stallions to be found anywhere in the West. These Belgians are all being sold with an absolute cash guarantee. Mr. Bernard handles large numbers of stallions and is content with a small profit. His horses can be seen at his sale

Nebraska Pure Bred Horse Breeders' Association Fourth Annual Sale

Sale Pavilion Grand Island, Nebr., Feb. 28 and March 1

150 HEAD



consigned by the best breeders in Nebraska. About half of the offering will be stallions of good ages, among them animals good enough to head any herd in the land. Mares in foal and fillies of splendid merit and richly bred.

Percherons, Belgians and Shires

Annual meeting will be held at Palmer hotel Feb. 27, 7:30 P. M. Annual banquet, Palmer Hotel Feb. 28 at 6:30 P. M.

H. J. McLaughlin, Pres. C. F. Way, Sec. and Treas. Doniphan, Nebr. Lincoln, Nebr.

For catalog address the secretary, Box 805, Lincoln, Neb.

Auctioneers—Col. Carey M. Jones, Col. Pat McGuire. Fieldman—Jesse R. Johnson. Mention Mail and Breeze.

Wernimont's Immune Duroc Sow Sale

on farm near Ohioa, Nebraska, February 26

15 Tried Sows. 15 Fall Yearlings. 10 Spring Gilts.

Lots of size and splendid Duroc conformation. Selling tops, bred to such great sires as CRIMSON DEFENDER and NEBRASKA PATH-FINDER, an outstanding son of Pathfinder. Sired by boars like Pathfinder, Gano's Masterpiece, Great Model Again and others of equal merit. Write now for catalog and mention this paper. Send bids to fieldman or auctioneer.

Henry Wernimont, Ohioa, Fillmore Neb. Auctioneer—Col. H. S. Allen. Fieldman—Jesse Johnson.

Five Strong Registered Hereford Bulls

14 to 19 months old. Sixty high grade Hereford cows showing calf. Some calves at side. All real bargains so act quickly.

Fred O. Peterson, R. R. 5, Lawrence, Kan.



Shorthorn Sale at Wichita, Kan.

Wednesday, Feb. 27 at 1:00 P.M.

50 head nearly evenly divided between bulls and females. These have been selected from the leading herds in the Wichita territory and also include a few choice consignments from other sections. This will be one of the most useful offerings of Shorthorns ever made in the Southwest. The sale will be held in connection with the Livestock Show and will be one of the important features of the occasion. Shorthorn steers won the grand championship in the carload division at the recent Denver show. A Shorthorn steer was the grand champion at the last International and Shorthorns made the highest percentage of dressed weight of all breeds at the recent International. The Shorthorn is the breed for you. For catalogs address

AMERICAN SHORTHORN BREEDERS' ASS'N.
13 Dexter Park Ave., Chicago, Ill.
Rank C. Forbes, Sale Manager. P. M. Gross, Auctioneer.

HAMPSHIRE HOGS.
REGISTERED HAMPSHIRE 150 gilts and boars, all ages. Cholera immuned. Satisfaction guaranteed. C. E. LOWRY, Oxford, Kan.
CHOICE SPRING BOARS AND GILTS bred or open, sired by Jackson Lad, a son of the undefeated Messenger Boy; also a nice lot of fall pigs. F. T. Howell, Frankfort, Kan.

Hampshires on Approval
 A few choice bred gilts for sale. Fall pigs, either sex, pairs and trios. F. B. WEMPE, FRANKFORT, KAN.

SHAW'S HAMPSHIRE
 200 head Messenger Boy breeding. Bred sows and gilts, service boars, fall pigs, all immune, satisfaction guaranteed. WALTER SHAW, R. 6, Phone 3918, Derby, Kan. WICHITA, KAN.

500 HAMPSHIRE BRED
 Sows and gilts bred to Grand Champion boars nicely belted, large litters, healthiest and best hustlers in the world. Will make more dollars from pasture than any hog grown. Write SCUDDER BROS., DONIPHAN, NEBRASKA.

POLAND CHINA HOGS.
Spotted Poland China Gilts
 30 fall and spring gilts bred and open. A few good tried sows. Also some good spring boars. All well spotted. Best breeding condition. Write at once. R. H. McCUNE, (Clay Co.) LONGFORD, KANSAS.

FORTY BIG TYPE BOARS
 Forty big husky spring boars, sired by Illustrator 2nd Jr., G. M.'s Defender, G. M.'s Crimson Wonder, C. W. Again Jr., Great Wonder and Critic D. These are from big mature sows. Immunized. Priced to sell. G. M. SHEPHERD, LYONS, KANSAS

20 BRED GILTS 20
 Bred to Model Big Bob, for March and April farrow. A. L. ALBRIGHT, WATERVILLE, KAN.

Townview Polands
 Herd headed by the great young boar, King Wonders Giant 77328. I can ship spring pigs, either sex, or young heifers not related. Boars ready for service. Bred gilts. Prices and Hog are right. Chas. E. Greene, Peabody, Kansas

FAIRVIEW POLAND CHINAS
 40 heavy-boned fall pigs. Can furnish pairs, not related. Also a few serviceable boars. Pedigreed and priced to sell. F. L. WARE & SON, PAOLA, KANSAS

Spotted Poland China Fall Pigs
 30 fine ones, pairs and trios not related. Out of mature sows and sired by choice boars. Well spotted and thrifty. CARL F. SMITH, CLEBURNE, KANSAS

Old Original Spotted Polands
 Stock of all ages; also bred gilts and tried sows ready to ship. Priced right. Write your wants to the Cedar Row Stock Farm, A. S. Alexander, Prop., Burlington, Kan.

Mar. Boars
 and gilts sired by Hercules 2d and Grandview Wonder. 75 fall pigs for sale, in pairs and trios not related. (Picture of Hercules 2d.) ANDREW KOSAR, DELPHOS, KAN.

ERHART'S BIG POLANDS
 A few September and October boars and choice spring pigs either sex out of some of our best herd sows and sired by the grand champion Big Hadley Jr. and Columbus Defender, first in class at Topeka State Fair and second in futurity class at Nebraska State Fair. Priced right, quality considered. A. J. ERHART & SONS, Ness City, Kan.

50 BRED POLAND CHINA SOWS AND GILTS
 100 fall pigs, either sex, at private sale. Best of Big Type breeding. PLAINVIEW HOG AND SEED FARM, Frank J. Rist, Prop., Humboldt, Nebraska. Box 3.

BIG WONDER 281929
 The outstanding spring yearling son of the noted Big Bob Wonder now at the head of my herd. This young sire was first in junior yearling class at Topeka; second at the National Swine Show in competition against the world. I will sell fifty sows and gilts Saturday, February 23, 1918, and a number of the best sows will be bred to Big Wonder. Send name early for catalog. I have a few choice spring boars priced to sell. V. O. JOHNSON, AULNE, KANSAS

Blough's Big Polands
BRED GILT SPECIAL
 I offer 30 splendid gilts at private sale about half by **OUR BIG KNOX 82153** and about half by **GRANDEE 76161**
 Nothing better at private sale this winter. Write today if interested. **John Blough, Americus, Kan. (LYON COUNTY)**

barn in Grand Island. He will also have a consignment in the Nebraska Breeders' sale at Grand Island, February 28 and March 1. When writing him please mention Farmers Mail and Breeze.—Advertisement.

Immune Duroc Sow Sale.
 Henry Wernimont, one of Nebraska's most successful breeders of registered Durocs, is advertising his annual bred sow sale to be held as usual on the farm near Ohiowa (Fillmore county). This year's offering is high class in every way. Of the 40 selling 30 are tried sows and big fall yearlings, and 10 spring gilts are the tops from the entire season's crop. The offering includes the big tried sow Gano's Fern that topped a leading Nebraska sale last winter at \$450. She is one of the largest and best sows that will sell this winter. Two spring gilts sired by Pathfinder will also sell. Others are by Crimson Defender, Harding's Golden Col., Great Model and other great sires. The offering will be bred to the herd boars Crimson Defender and Nebraska Pathfinder, one of the best sons of Pathfinder. The catalog gives all information. Write for it and mention this paper. Parties unable to be present may send bids to Jesse Johnson in Mr. Wernimont's care at Ohiowa, Neb.—Advertisement.

Easton's Big Duroc Sow Sale.
 March 5 is the date of O. E. Easton's big reduction Duroc Jersey sale to be held on his farm adjoining Alma, Neb. Mr. Easton is selling off very close at this time and this is in reality a dispersion sale. He sells a lot of big tried sows sired by boars of note. The spring gilts are nearly all out of sows sired by King The Col. and they were sired by Valley Illustrator, a son of Moat's Illustrator, Golden Wonder Joe Orion 5th and Educator. The fall gilts were all sired by Valley Illustrator. The boar Golden Wonder is a big, strong Deltach carrying the blood of the Crimson Wonder and Golden Model families. Col. Crimson is a young boar of great merit; few boars raised this year have as much bone. He is a son of J. C. Boyd's good breeding boar Crimson Model and his dam was by Royal Col. Mr. Easton has been a good buyer from the best breeders and this offering will be a surprise to anyone who has not yet had the privilege of visiting the herd and seeing the sows here good enough to buy. Sixty fall boars and gilts will also be sold. They are eligible to record and good individuals. Write for catalog and mention this paper. Bids may be sent to Jesse Johnson in Mr. Easton's care at Alma, Neb.—Advertisement.

Scottish Rex 2d Shorthorn Sale.
 K. F. Deitsch, Shorthorn breeder of Orleans, Neb., announces a reduction sale to be held at the farm near town March 5. This offering will consist of 32 females, nearly all of breeding age and bred to great Scotch bull Scottish Rex 2d. Included in the sale are many real herd bulls, among them Royal Rex, a son of Scottish Rex 2d, Golden Stamp, a Scotch bull sired by Snowflake's Stamp and out of a Nonpareil dam, Orphan Goods, a son of Good Count 3d and out of a Dew Drop cow. Several others will be included with just as good blood lines and splendid individuals. He will also include five or six extra big range bulls. The female division is equal to the male in every way. Ten or 12 of the cows will sell with big calves at foot and most of them rebred. Among the females will be Meadow Beauty 8th, sired by Imp. Scottish Sentinel, and her dam was Imp. Meadow Beauty. This fine cow sells with a calf at foot sired by Scottish Rex 2d. Mr. Deitsch is changing locations and for that reason is selling off many of his good females that he would not otherwise sell. This will be one of the really good Shorthorn offerings of the season. It is impossible to mention many of the real attractions, but the catalog tells all about them. Write for it today and mention Farmers Mail and Breeze.—Advertisement.

Gelken's Duroc Jersey Bred Sow Sale.
 Thursday, February 28, is the date of H. D. Gelken's annual Duroc Jersey bred sow sale. The sale will be held at the Gelken farm near Cozad, Neb. The offering, consisting of 52 head, will be one of the best of the season. The tried sows and fall gilts will be sired by the great breeding boars Big King The Col., one of the best sons of King The Col. This sire has sired some of the best sows to be found in the Platte Valley. His dam was Golden Pet, a good representative of the great Golden Model family. The offering will nearly all be bred to the herd boars, Bader's Smooth Sensation (a boar of great scale and sired by Sensation Wonder 4th, and out of one of the best sows in John Bader's herd), and Great Wonder's Model 2d, a worthy son of Great Wonder. His dam Grand Lady 20th, was the sow that topped the Waltmeyer sale last August. A few will be bred to Red Wonder, an extra heavy boned young fellow sired by Red Taylor. The 40 big spring gilts were sired by Big King The Col., Col. Pride Illustrator 2d, and Cleatham's Pride. There will be some real attractions in this sale, including the great junior yearling gilt, Our Choice Goods. She will be bred to Bader's Smooth Sensation, for middle of March farrow. Not a poor one will be cataloged and everything has been done in the way of feeding and caring for them that might insure good results from the breeder's standpoint. Write at once for catalog and mention Farmers Mail and Breeze.—Advertisement.

The Boyne Rex Shorthorn Sale.
 March 7 is the date of Frank Uhlig's annual Shorthorn sale to be held in the sale pavilion at Falls City, Neb. A big feature of this sale will be the choice young bulls and heifers sired by and the young cows bred to Mr. Uhlig's great Scotch herd bull, The Boyne Rex. This bull individually is one of the best bulls in Nebraska. He is now in his 3-year-old form and weighing 2,100 pounds in ordinary breeding flesh. He would weigh 2,400 if fat. This bull is one of the best sons of the great bull Scottish Rex and on his dam's side he is a grandson of the imported cow Lady Of The Boyne. Seventeen very choice heifers sired by this bull sell open. A big per cent of the young bulls were sired by him. Among the attractions of the sale will be the Scotch cow Arbaeden Maid 8th, sired by Sir Charming 10th. Practically everything in the sale was bred on the farm under ordinary farm breeding conditions, they are descended from the cow Bampton Gem 2d, sired by a Dutchy bull and coming from the good True Love family. Since starting the herd Mr. Uhlig has used nothing but the best Scotch herd bulls. The first one, Knight of Greely was followed by Golden Dutchman, a bull of immense scale. From this we were raised some fine big cows that are the dams of the young bulls and heifers that go in this sale. Among them are many splendid

JERSEY CATTLE.
FOR SALE—LAD OF SUMNER HALL
 No. 156943 Registered Jersey Bull dropped Feb. 12, 1917. Grand-dam imported from Island. HORACE M. PIERCE, JUNCTION CITY, KANSAS.

ABERDEEN ANGUS CATTLE.
Aberdeen Angus Cattle
 Herd headed by Louis of Viewpoint 4th. 150624, half brother to the Champion cow of America. Johnson Workman, Russell, Kan.

15 ANGUS BULLS
 10 mos. to 2 yrs. old, out of Good Straus and a fine sire Milldale Prince Albert 157143. A few cows. H. L. Knisely & Son, Talmage, Kan.

ANGUS CATTLE
 170 breeding cows. For the best in registered Angus cattle investigate this herd. A pioneer herd with quality and breeding. Sutton & Wells, Russell, Russell Co., Kansas

RED POLLED CATTLE.
FOSTER'S RED POLLS Write for prices on breeding stock. C. E. FOSTER, R. R. 4, Eldorado, Kansas.

Pleasant View Stock Farm
 Registered Red Polled cattle. For sale: a few choice young bulls, cows and heifers. HALLOREN & GAMBRILL, OTTAWA, KANSAS.

Morrison's Red Polls Nine bulls from 6 to 12 months old, by Crema 2nd. Cows and heifers. CHAS. MORRISON & SON, Phillipsburg, Kan.

PUBLIC SALE
 of choice Red Polled cattle, all sizes, both sex, March 6, 1918, six miles west of Oberlin, Kan. Write for catalog. J. L. ROGERS, OBERLIN, KANSAS.

Sunnyside Red Polls
 I have young bulls with quality that will please the up to date breeder. Come and see them or write for description. T. G. MCKINLEY, JUNCTION CITY, KAN.

SHORTHORN CATTLE.
TWO REGISTERED SHORTHORN BULLS
 one yearling, one two years old. Write WILL WELTMER, ALDEN, KANSAS.

PURE BRED DAIRY SHORTHORNS
 Double Marys (pure Bates), and Rose of Sharon families. Some fine young bulls. R. M. ANDERSON, Beloit, Kan.

Scotch and Scotch Topped Bulls for sale
 15 head that are 10 to 12 months old, handled to insure future usefulness. Write for prices. C. W. TAYLOR ABILENE, KAN. (Dickinson County)

Stunkel's Shorthorns
 Scotch and Scotch Topped Herd headed by Cumberland Diamond bulls, reds and roans 8 to 24 months old, out of cows strong in the blood of Victor Orange and Star Goods. No females at present to spare. 15 miles south of Wichita on Rock Island and Santa Fe. E. L. STUNKEL, PECK, KANSAS.

RED BOY 425065
 is my three year old **Shorthorn Herd Bull** and I must sell him. A show bull and a great breeder. Priced to sell him. Address F. C. Swiercinsky, Belleville, Kansas

50—Bulls for Sale—50 Shorthorns and Herefords
 in age from 12 to 24 months. Choice selections. Prices range from \$100 up. Also Shorthorn females of different ages. Inspection invited. 200 bred ewes. **Elmendale Farm, Fairbury, Nebr.**

SHORTHORN BULLS
 5 that are ready for service—12 to 15 months old. 15 that are from 8 to 10 months old. Bulls from a working herd that will make good in your herd. Prices right. **V. A. Plymot, Barnard, Kansas**

FARMERS MAIL & BREEZE
 ENGRAVING DEPARTMENT
 TOPEKA, KANSAS
 CUTS OF YOUR LIVESTOCK FOR LETTERHEADS & SALE CATALOGS

SHORTHORN CATTLE.
Melvora Stock Farm
 Now Offers For Sale Five Shorthorn bulls, six to ten months old. Reds and roans. Priced to move them. M. L. GOULD, JAMESTOWN, KANSAS

Salt Creek Valley Shorthorn Cattle
 For Sale—Our herd bull Red Laddie 353594, by Capt. Archer 205741. Pure Scotch and a great bull. Guaranteed a breeder. Also ten Scotch top bulls from ten to twenty months old. All good ones. No cows or heifers for sale at present. We also offer 25 bred Poland China gilts, weighing from 200 to 275 pounds. **E. A. Cory & Sons, Talmo, Kan. (Pioneer Republic County Herd)**

Cedarlawn Shorthorns
 For Sale: 14 bulls, 8 to 12 months old. Reds and Roans. **S. B. Amcoats, Clay Center, Kan.**

ACRES Crescent Acre Farms
 Registered Shorthorn Cattle. For Sale: 12 Bulls from 10 to 12 months old. Scotch tops. Reds. Popular blood lines. Big richly bred dams. Correspondence promptly answered. Address **WARREN WATTS, Clay Center, Kansas**

Lancaster Shorthorns
Lancaster, Kan., Atchison Co.
 Imported and home bred cattle. Headquarters for herd bulls. All within three miles of Lancaster. Twelve miles from Atchison. Best shipping facilities.

Ed Hegland
 Some choice cows and heifers and young bulls for sale.

K. G. Gigstad
 20 bulls, 9 to 7 months old. Reds and roans.

W. H. Graner
 12 yearling bulls, 8 and 9 months old.

H. C. Graner
 4 yearling bulls, also bred cows.

C. A. Scholz
 Some bred cows. Cows with calf at foot and bred back. Young bulls from 6 to 8 months. **Address these Breeders at Lancaster, Kan.**

NEW BUTTERGASK FARM SHORTHORNS
 A pioneer Mitchell county herd of over 100 head. Our herd has reached the point where a reduction is necessary and for 30 days we offer at very reasonable prices **15 Bulls From 10 to 22 Months Old**
 four of them pure Scotch and the others Scotch topped. About half of them reds and the others roans. These bulls are big rugged fellows with lots of bone, size and quality. About half of them by Upland Viscount (418860) by Ury Dale by Avondale. The others by Snowflake Stamp, by Snowflake.
10 Splendid Cows and the Herd Bull Snowflake Stamp
 We will make close prices on this great foundation herd if taken as a whole or will sell them to suit purchaser. The bull will be priced right separately. Two of the cows have calves at foot and bred back and all are to drop calves in the spring. Address **Meall Bros., Cawker City, Kan (MITCHELL COUNTY)**



POLLED DURHAM CATTLE.

DOUBLE POLLED DURHAM BULLS for sale. Forest Standard Polled Durham Bull at the head of the herd. C. M. HOWARD, HAMMOND, KANSAS

FOR SALE Young registered Polled Durham and Shorthorn breeding cattle. J. H. HELD, STERLING, COLORADO.

For Sale—Good Polled Durham Bulls at \$100 to \$150, good grades at \$75. Full blooded heifers at \$100 to \$125. Also good young coming year old Jack, and an extra good one coming three at reasonable price. D. C. Baumgartner, Halstead, Kan.

J. C. BANBURY & SONS POLLED DURHAMS (Hornless Shorthorns)



150 head in herd. 25 bulls. Reds and Romans, \$100 to \$300. Halter broke. Roman Orange, 883944, weight 2500 in flesh. Sultan's Pride, 429017, first and Junior champion in three states, in service. J. C. BANBURY & SONS, Phone 1602, PRATT, KAN.

AYRSHIRE CATTLE.

ABARGAIN Two Ayrshire Bull Calves

Ten days old, beautifully marked, four-fifths white. No. One's Dam and Sire's Dam averaged 11621 lbs. of milk and 534 lbs of butter in a year. No. Two's dam at three years, and Sire's dam averaged 10824 lbs. of milk and 470 lbs. of butter in a year. The first check for \$50 buys either calf. Loveland Farms Company, Omaha, Nebraska.

HOLSTEIN CATTLE.

Choice Holstein Calves! 12 Heifers 15-18ths pure, 5 to 6 weeks old, beautifully marked, \$20 each. Safe delivery and satisfaction guaranteed. FERNWOOD FARMS, Wauwatosa, Wis.

OK HILL FARM'S HOLSTEIN CATTLE yearling bred heifers and bull calves, mostly out of A.R.O. cows. Perfect satisfaction guaranteed. BEN SCHNEIDER, Nortonville, Kan.

Segrist & Stephenson, Holton, Kansas Breeders exclusively of purebred, prize-winning, record-breaking Holsteins. Correspondence solicited. Address as above.

HOLSTEIN CALVES, 25 heifers and 4 bulls, 15-16 pure, 5 weeks old, from heavy milkers. \$25 each. Crated for shipment anywhere. Send orders or write EDGEWOOD FARMS, WHITEWATER, WIS.

HOME DAIRY FARM, DENISON, KAN. Some young bulls for sale. Also females. Member H. F. Assn. of Kansas. J. M. Chestnut & Sons, Denison, Kan.

Registered and High Grade Holsteins Practically pure bred heifer calves, six weeks old, crated and delivered to your station \$25 each. Safe arrival and satisfaction guaranteed. Write us your wants. CLOVER VALLEY HOLSTEIN FARM, Whitewater, Wis.

Braeburn Holsteins Lots of bull calves, a week old to a year, outcome of 25 years improvement. H. B. COWLES, 608 Kan. Ave., Topeka, Kan.

REGISTERED HOLSTEINS. "Tredico is the best with wonderful constitutions." If the last bull you bought had a weak constitution from a forced record or a disease, visit Tredico at once. GEO. C. TREDICK, KINGMAN, KANSAS.

REGISTERED HOLSTEIN BULLS From A.R.O. cows. All our own breeding. Bred for milk and fat production. **LILAC DAIRY FARM** R. F. D. 2, TOPEKA, KANSAS

FREE information about the most profitable breed, Purebred HOLSTEINS. They give greatest yields in Milk, Butterfat and Dollars. The Holstein-Friesian Association of America. Box 292, Brattleboro, Vt.

The Cedarlane Holstein Herd

For Sale: Our 4 yr. old grandson of Pontiac Korndyke, guaranteed free from Tuberculosis, contagious diseases and a sure breeder. Dam's record 27-59, sire's dam 31.01 pounds. Must sell to avoid tuberculosis. Price right. Also special prices on bull calves from above bull. Still have a few good cows for sale.

T. M. Ewing, Independence, Kansas

STUBBS FARM Offers:

Sir Clara Gem De Kol, born Oct. 9, 1916, about half black, half white, perfect individual, straight back, broad level rump, wonderful barrel and a world of style and quality. His dam, sire, 30 sisters and all four grand parents are in A. R. O. Price \$175 crated f. o. b. Mulvane. Guaranteed free from tuberculosis and to be a breeder. A bargain for quick sale. Address **Stubbs Farm, Mulvane, Kansas**

making cows. The cows sell all in calf and calves at foot. The cattle will be on exhibition at Falls City, several weeks prior to the sale. Write early for catalog and mention this paper.—Advertisement.

Poland China Sow Sale at Roca, Neb.

Friday, March 1, is the date of the annual combination Poland China bred sow sale to be held in the sale pavilion at Roca, Neb. This year's offering consists of 40 good ones picked from the herds of three good breeders. A glance at the catalog will reveal the fact that the boys have as good a line of strictly big type breeding as will be found in any one sale this winter. Much of the offering will be sired by Smooth Charley, a son of Big Smooth Price, the same line of breeding that produced Big Joe and a lot of other prominent herd boars. Others are by See Expansion, a boar tracing close to the noted boar Expansion, Smooth Jumbo, a thousand pound boar and a son of Orphan's Chief Price, Big Paul by Big Jumbo, and some by Long Model, all boars that have made their mark in good Nebraska herds. They are bred to such sires as Big Timm. Again, a full brother to Tom Walker's boar Blue Valley Timm. He is a son of the champion Big Timm, and his dam was a sow that weighed 996 pounds. Others are bred to Big Paul whose dam was sired by the noted boar King of All, and the splendid young sire Big Chief, a son of Orphan Wonder 2d. Some are bred to Smooth and Jumbo and a few to the half ton sire Big Cloverdale 2d. The catalog gives all information for the benefit of those attending the sale or those sending mail bids. An effort has been made to give an accurate description of the animals where foot notes are used. The different lots are well grown and within a very short time after this sale is held, alfalfa will be ready for pasture. Write now for a catalog to H. J. Beall, Roca, Neb., and if interested and unable to attend, you may send bids to Jesse Johnson in Mr. Beall's care.—Advertisement.

S. E. Kan. and Missouri

BY C. H. HAY.

A letter just received from P. L. Ware & Son, proprietors of the Fairview Herd Poland Chinas, of Paola, Kan., advises that they are entirely sold out on sows and gilts and that they now have nothing left at this time except some fall pigs and some serviceable boars. They are pricing these pigs and boars reasonably and if you are interested in good Poland Chinas, write P. L. Ware & Son for description of what they have to sell at this time.—Advertisement.

McBride's Durocs.

If you will come to the McBride Duroc sale at Parker, Kan., February 20, we will show you a wonderful lot of bred gilts and one of the best Pathfinder boars in Kansas. H. & B.'s Pathfinder is a splendid individual and he is siring a wonderful lot of pigs. When you see some of his last spring get you are sure to bid high for some of the good gilts that are bred to him. Don't overlook this sale if you are in the market for Durocs. Send mail bids to C. H. Hay if you cannot attend.—Advertisement.

Bradley Brothers' Jack Sale.

Again we wish to call your attention to the Bradley Brothers' Jack sale at Warrensburg, Mo. If you are in the market for a good herd jack or a good mule jack, you should have a catalog of this sale. There are about six great herd headers in this sale and over 30 great mule jacks. They will also sell about 30 jennets, most of them in foal to their herd jacks. The Bradley Farms are truly "The home of the Giants." Their jacks have the size, the feet, bone, shoulder, head and ear and everything else that it takes to make good jacks. Don't forget the date of this sale, March 4, and remember it is one of the very top sales of the year.—Advertisement.

Souders's Poland Chinas.

In calling your attention to the Souders Poland China sale to be held at Chetopa, Kan., February 26, we feel that we are directing you to one of the most select offerings of the state. The 50 head that will constitute this offering are unusually uniform and will tip the scale with any to be sold this year. Mr. Souders claims to have the largest fall yearlings of the breed and his claims are justly founded. The spring gilts in the sale are sired by Ex Jumbo by Monroe's Jumbo by Big Jumbo, and Neb. Wonder by Big Bone's Son. The fall yearlings are by Ex Jumbo and Chief's Best. All the spring gilts and the fall yearlings by Ex Jumbo are bred to John Worth by The Mint by Goldengate King. The Mint is owned by J. R. Young of Richards, Mo., and his get won a good portion of the ribbons in their classes at the Missouri State Fair last fall. The fall yearlings by Chief's Best are bred to Ex Jumbo. The entire offering is immune and is in the best of condition. The sale will be held in town. Railroad service is good from all directions and especially from points in Oklahoma. If you are interested in some good bred gilts write for catalog of this sale.—Advertisement.

Dean Will Have Good Offering.

Clarence Dean of Weston, Mo., will hold his annual bred sow sale at Dearborn, Mo., February 28. The offering will consist of the best bred sows and gilts of the breed. There will be 15 tried sows by the champion Long Big Bone, Mastodon Price, Smooth Black Bone by the champion Smooth Big Bone, Big Bone Model by Long Big Bone, and Big Jumbo 2d. There will be 10 fine big fall yearlings by Smooth Black Bone and Big Bone Model. The balance are spring gilts and just about as pretty a bunch as you ever saw. They are by such boars as Gerstdale Jones, Dean's Big Timm, Big Bone Model and Smooth Black Bone. Three Gerstdale Jones gilts are selling as attractions. There were five gilts (and three boars) in this litter. The five gilts are all alike, they are good and the man that buys them will have something to be proud of. These gilts, all the tried sows and the fall yearlings, are bred to Dean's Big Timm, one of the best sons of the noted Big Timm. The spring gilts by Big Bone Model, Smooth Black Bone, and Dean's Big Timm are bred to Dean's Big Jones by the \$6,600 Gerstdale Jones. Every one of the 50 consigned to this sale is a good individual. Write for catalog.—Advertisement.

Co-operation without teeth in it is as useful as a threshing machine without a cylinder.

I. W. W.-ism is neither a religion nor a political creed—it's religious and political atheism.

Here Is Your Chance to get started in Registered Holsteins. Get in something that will make you money every year and every day in the year. Two registered heifers that are bred and one yearling bull for \$500. **HIGGINBOTHAM BROS., ROSSVILLE, KAN.**

W. H. Mott, Herington.

A. Seaborn, at the farm.

Record Holsteins For Sale

We have grade cows with records, 350 to 400 pounds of butter in 10 months, that we will sell. 100 head of large, well marked, Dairy type heifers, due to freshen soon, all high grade. 50 head of young cows, some fresh, others heavy springers. Some choice young bulls ready for service. 40 head of purebred heifers and cows to freshen this fall. We can ship via Rock Island, Missouri Pacific or Santa Fe.

MOTT & SEABORN, HERINGTON, KANSAS

M. E. Peck, Sr. At the farm Phone 1819 F 2

M. E. PECK & SON SALINA, KANSAS

M. E. Peck, Jr. In town Phone 1989 W

Oakwood Dairy Farm Holsteins—Special Feb. Prices

On 50 cows to freshen between now and March first. These cows, many of them, have given milk all summer, from 40 to 50 pounds per day. They are right every way.

60 two-year-old heifers to freshen between now and April first. We mean just what this says. If you want Holstein cows and heifers of the right kind write us at once.

We like to know where you saw our advertisement. Address

M. E. Peck & Son, Salina, Kan.

SUNFLOWER HERD

will not hold an annual sale this spring. Instead we are consigning to the **KANSAS BREEDERS' SALE**, to be held at the Fair Grounds, Topeka, Kan., on March 26.

This is to be a **Quality** sale, so it means a draft of the best from this herd, so **BEAR** this in mind and govern yourselves accordingly. One hundred head will be sold. Come and help make this big sale a success and take some of these good Holsteins home with you.

F. J. Searle, Prop., Sunflower Herd, Oskaloosa, Kansas

Special Holstein Bargains For 60 Days

Having purchased the Holsteins of the Healy estate and having more cattle than I can handle I will make close prices for the next 60 days.

70 extra choice, high grade, heavy springing heifers to freshen in January and February.

50 choice, high grade heifers, (long yearlings), bred to my herd bull whose sister holds the world's record for milk production for a two-year-old.

Choice registered heifers sired by a 40-pound bull and bred to a 40-pound bull. A few young bulls with A. R. O. backing for sale. Many of them old enough for service. Address

M. A. Anderson, Hope, Dickinson Co., Kan.

Note: Hope is on the Main line Missouri Pacific, Strong City branch of the Santa Fe and only 8 miles from Herington on the main line of the Rock Island.

THE NEW HOME OF Eshelman's Holsteins

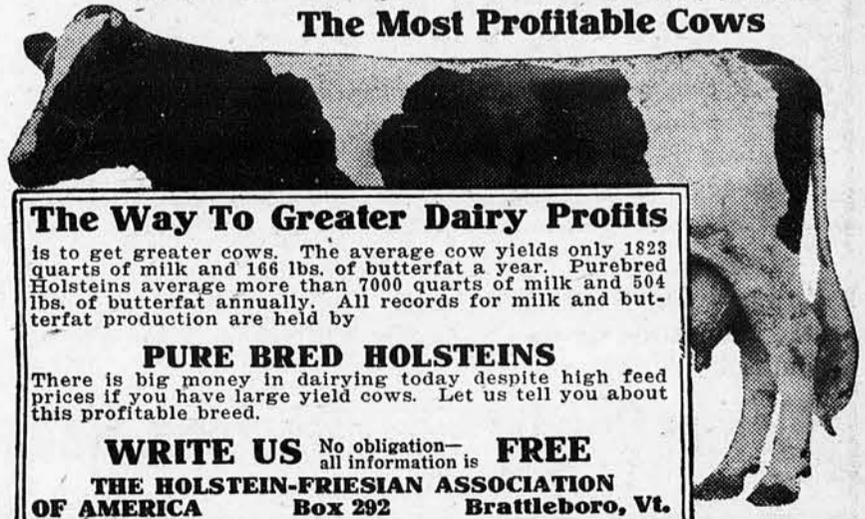
Will be on the recently purchased farms located on the Golden Belt road just outside the east City limits of Abilene.

Instead of selling the entire lot as anticipated we will move the herd to its new home, but because of the lack of adequate dairy barn room at this new location at present, we will continue to sell you your choice, a few at a time or as many as you want, of these high grade Holsteins.

We have some splendid two-year-old heifers bred to our great herd sire, **UNAHANNA PONTIAC KORNDYKE DOUBLE**, a grandson of **PONTIAC KORNDYKE**, who has to his credit 144 A. R. O. daughters, twelve of which averaged above 30 pounds in seven days and four of which averaged 37.28 in seven days. We believe a good sire is half the herd.

A. L. ESHELMAN, ABILENE, KAN.

PURE BRED HOLSTEINS have been definitely proven **The Most Profitable Cows**



The Way To Greater Dairy Profits

is to get greater cows. The average cow yields only 1823 quarts of milk and 166 lbs. of butterfat a year. Purebred Holsteins average more than 7000 quarts of milk and 504 lbs. of butterfat annually. All records for milk and butterfat production are held by

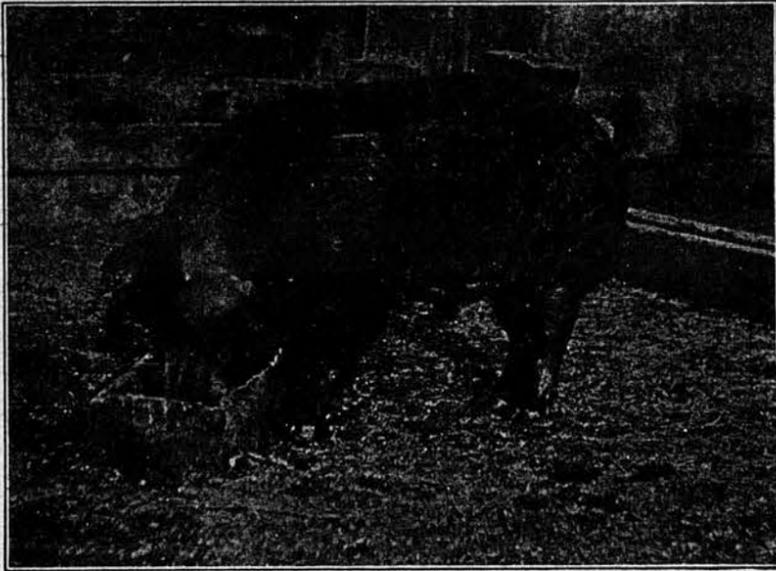
PURE BRED HOLSTEINS

There is big money in dairying today despite high feed prices if you have large yield cows. Let us tell you about this profitable breed.

WRITE US No obligation—**FREE** all information is **THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA** Box 292 Brattleboro, Vt.

McBride's Duroc-Jersey Sow Sale

Parker, Kan., February 20, 1918



H. & B.'S PATHFINDER.

50 HEAD OF THE BEST DUROC JERSEY GILTS IN KANS. Bred to Pathfinder; H. & B.'s Pathfinder; Orion Belle, the greatest Pathfinder boar in Kansas; Jorgenson's Golden Model, by Grand Model 14th; Golden Orion King.

Special Feature: An outstanding young boar by H. & B.'s Pathfinder. All he brings above cost to go to Red Cross.

Will sell several good young boars. I think this offering will compare favorably with any in the state and I guarantee you will not be disappointed if you attend this sale. We start selling at 12:30 sharp. Write for catalog. Send mail bids to C. H. Hay in my care.

W. T. McBRIDE, PARKER, KANSAS

C. H. Hay, Fieldman. Cols. H. D. Rule and S. L. Jackson, Aucts.

DEAN'S Big Bred Sow Sale

Dearborn, Mo.

Thursday, February 28
60 Head of the Best **60**
 Bred Sows in America

15 TRIED SOWS, by SMOOTH BLACK BONE, by the Champion Smooth Big Bone; LONG BIG BONE; BIG BONE MODEL, by the Champion Long Big Bone; MASTODON PRICE; BIG JUMBO 2d.

10 FALL YEARLINGS, by SMOOTH BLACK BONE; BIG BONE MODEL.

35-SPRING GILTS, by GERSTDALE JONES; SMOOTH BLACK BONE; BIG BONE MODEL; DEAN'S BIG TIMM; bred to DEAN'S BIG JONES, by GERSTDALE JONES; DEAN'S BIG TIMM, by BIG TIMM.

IMMUNE

Write for catalog. The sale will be held in Dearborn. Interurban cars to and from Kansas City and St. Joseph every hour. Mail bids should be sent to C. H. Hay in my care. Col. P. M. Gross, Auct.

Clarence Dean, Weston, Mo.

Souders' Big Bred Sow Sale

Tuesday, Feb. 26th



50 Head of Spring and **50**
 Fall Yearling Gilts

35 head of exceptionally good spring gilts and 8 head of the fall yearlings are by Ex Jumbo by Monroe's Jumbo by Big Jumbo. These are bred to John Worth, by The Mint, by Goldengate King. There will be 7 fall yearlings by Chief's Best, they are bred to Ex Jumbo. All are IMMUNE.

We are selling the largest fall yearlings that will be sold in the state. Write for catalog. Mail bids should be sent to the fieldman in my care. The sale will be held in town. Splendid railroad service.

Homer Souders (OWNER) Chetopa, Kan.

C. H. HAY, Fieldman.

Dispersion Sale

Pure Bred Holsteins

22 Choice Females—5 Males

Sale at the W. O. Morrill Farm

Summerfield, Kansas
 Wednesday, Feb. 27th

A Dispersion sale of the entire W. O. Morrill Herd of registered cattle and consignments by Ira Collins, Sabetha, who is listing a yearling bull from an A. R. O. dam.

The Nemaha Valley Stock Farm, Seneca, is consigning four registered cows and a choice two year old bull.

In all the offering numbers 22 females and five bulls as follows: 2 fresh cows, five cows fresh soon, 11 giving milk now, 2 heifers to freshen in May. 2 coming year old heifers. Herd bull and a two-year-old bull. Two yearling bulls, one from an A. R. O. dam and a bull calf. Catalogs ready to mail. Address

W. O. Morrill, Summerfield, Kansas

Auctioneers, Jas. T. McCulloch, F. E. Kinney.
 J. W. Johnson, Fieldman.

60-Shorthorns At Auction-60 Southwestern Live Stock Show and Sale

Oklahoma City, Oklahoma
Tuesday, March 5th, 1918

High Class and Richly Bred Individuals

40 FEMALES, mostly of the very best Scotch breeding including such cows as **Roan Sappy**, bred by C. E. Leonard, Bunceon, Mo., with white cow calf at foot sired by Imp. Proud Emblem; **Bashful Calla** by Dale's Emblem by Double Dale by Avondale and of the Miss Ramsden family; **Sycamore Spirea 3d** by Mistletoe Archer, in calf to Whitehall Memory; **Primrose 11th**, 3rd dam, Imported **Primrose 5th**, with cow calf at foot by Woodlawn Villager, and rebred to same bull. Also 25 other grand Scotch females, a great many of them with calves at foot.

20 BULLS—Included are: **Double Villager** by Imported Villager out of Rosetta of the Roan Lady family. **Snowball Sultan**, a white son of Glenview Dale 3d by Avondale, dam, Maplelawn Acanthus of the Cruickshank Acanthus family. **Brawith Villager** by Imported Villager, dam close up to Imported Generosity bred by A. Cruickshank. **Villager Royal**, a roan of the Prince Royal family. **Mistletoe Perfection**, a roan of the Missie family. **Dale's Cumberland 2d**, a white son of Pleasant Dale, dam, Beulah 9th by Dale's Cumberland, a son of Cumberland's Last. Also, 15 other bulls, some Scotch and some Scotch-topped—the right kind for the small breeder, farmer and ranchman. For Catalog apply to

H. C. LOOKABAUGH, WATONGA, OKLAHOMA
Auctioneers: Cols. Herriff, Hurt and Odell.

Easton's Immune Duroc Sow Sale

Alma, Nebraska, March 2



75 Head, All Immune and Richly Bred

15 BIG TRIED SOWS—30 BIG FALL YEARLINGS
30 SELECT SPRING GILTS

The offering was sired by such boars as **Illustrator 2nd**, **Col. Gano**, **King the Col.**, **Burk's Good Enuff**, **Golden Wonder**, and other boars of note.

The offering will be bred to the herd boars, **Golden Wonder** and **Col. Crimson**, a few bred to **Joe Orion 6th**. I will sell a lot of outstanding good spring gilts in this sale. Many of them sired by **Valley Illustrator**, the \$2,000 boar now owned by Moats Bros. The gilts are nearly all out of sows sired by the noted boar, **King the Col.** Write for catalog and mention Nebraska Farm Journal. Come and see for yourself or send bids to Jesse R. Johnson in my care at Alma, Neb.

O. E. Easton, Alma, Neb.

Auctioneers—Col. W. M. Putman, Col. E. D. Snell.
Fieldman—Jesse Johnson.

50--Duroc Jersey Bred Sows--50

A splendid offering of bred sows and gilts. Size and quality combined to a remarkable degree. In the sale pavilion,

Sabetha, Kan., Wednesday, Feb. 20

Seven Tried Sows, due to farrow their second litter. Big, broody sows that are certainly the big litter kind.

Four Fall Yearlings that would be attractions in any sale.

39 March and April Gilts that are very choice. Gilts by **Kansas King** and bred to **Poland's Col.**, a grandson of **King's Col.** The sows bred to **Kansas King**. Catalogs ready to mail. Address

Milton Poland, Sabetha, Kansas

Auctioneers: Roy Kistner, Chas. Scott, Ed. Crandall. J. W. Johnson, Fieldman.

Patterson's Shorthorns

Cows, Heifers and Bulls Reds, Whites and Roans

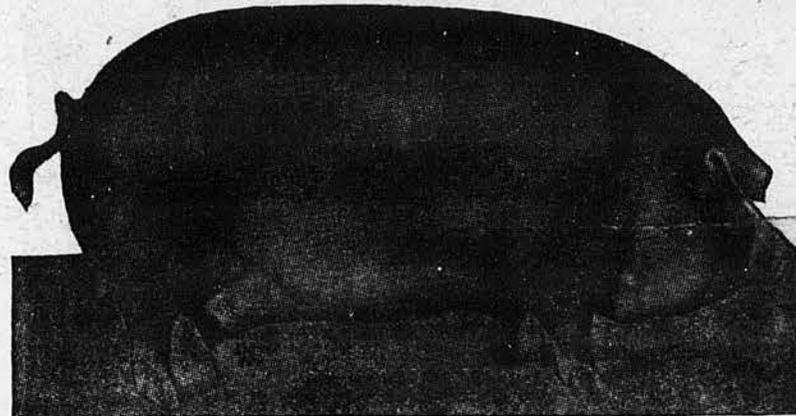
I was never better prepared to care for my customers. When you come to ElReno look over our herd. We have to offer from herd headers and show prospect to the rugged kind the farmer wants and at farmers' prices. Write today when you can call and let us show you our herd.

Lee R. Patterson, El Reno, Oklahoma

Roca Poland China Breeders' Bred Sow Sale

In sale pavilion, Roca, (Lancaster Co.,) Nebraska
Friday, March 1, 1918

40 Head of Big Ones, the majority Cholera Immune, 40



6 FALL YEARLINGS, 34 SELECTED SPRING GILTS

Sired by such great breeding sires as **Smooth Charley**, **See Expansion**, **Big Paul**, **Smooth Jumbo**, **Long Model**, and others. Out of dams sired by **Grandmaster**, **Smooth Chief**, **Nebraska Wonder 2nd**, **Jumbo Wonder**, **Big Cloverdale**, etc. BRED TO boars of merit such as **Big Timm Again**, by **Big Timm**, **Big Paul**, by **Jumbo 2nd**, **Big Chief** by **Orphan Wonder 2nd**, **Smooth Jumbo** by **Orphan's Chief Price**, and some to **Big Cloverdale 2nd**. No offering of the winter will have a bigger per cent of popular big breeding. We will have them conditioned to the best advantage for the buyer. Write for catalog and mention this paper. You are invited to attend the sale as our guest or send bids to Jesse R. Johnson in our care

For catalog address **H. J. Beall, Roca, Neb.**

H. J. Beall, Henry Wissell, Jake Etmund, Roca, Nebr.

Auct.: Col. J. C. Price; Fieldman: Jesse R. Johnson.



Announcing the Important Holstein Event of the season



Annual Sale

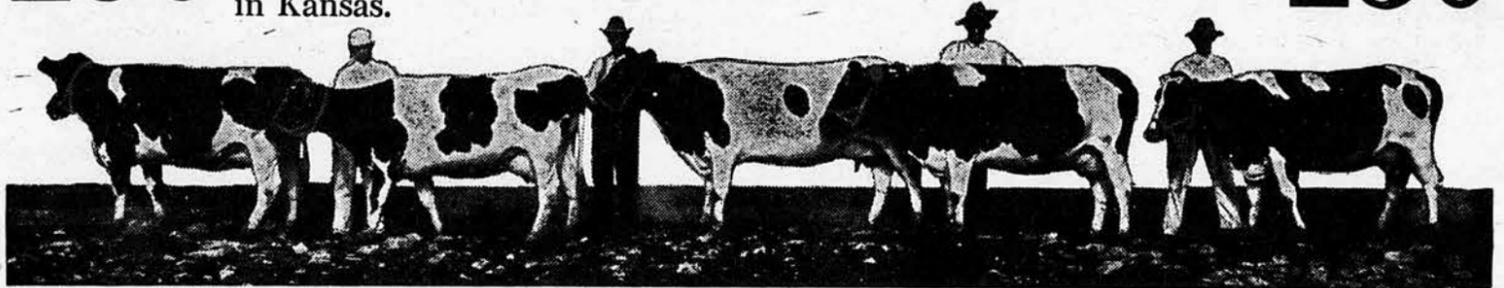
Blue Ribbon Holstein Farms

Harveyville, Kan., (Wabaunsee County) Thursday, February 21

150

head selected from over 400 Holsteins on our farms. Pure bred and high grade. Selected with the belief that we are offering in this public sale the best offering of Holsteins ever driven through a sale ring in Kansas.

150



Holstein Cows of Heavy Milk Production that are money makers on any farm.

We offer in this sale 100 cows and heifers heavy in milk now or heavy springers. Cows that will challenge any like number on any dairy farm in the West. 25 choice heifers that will be fresh this spring. 15 extra choice open heifers. 10 registered bulls, all ages.

Good railroad facilities via Santa Fe. Ask your R. R. agent to route you. We will take good care of our guests sale day. Write us if convenient that you are planning to attend. Write us at once for catalog and any information you desire. Address

LEE BROS. & COOK, HARVEYVILLE, KANSAS

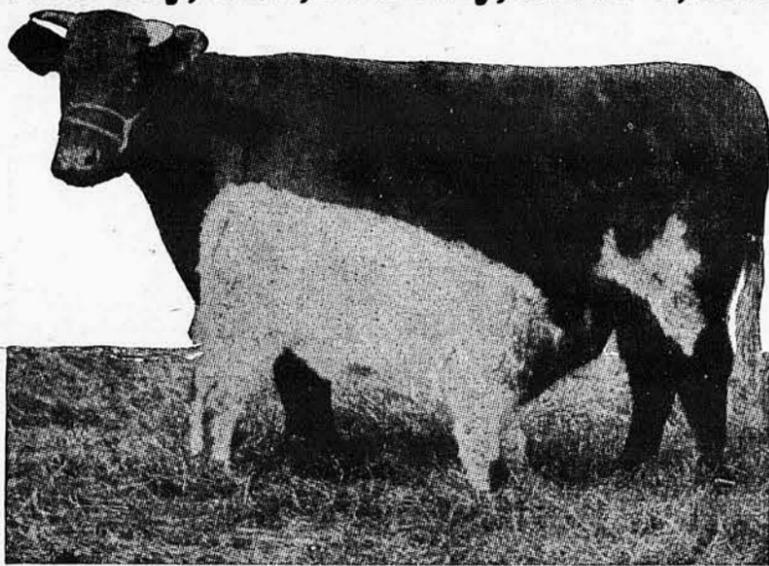
Col. Jas. T. McCulloch, Auctioneer.

We always like to know where you saw our advertisement.

Scotch and Scotch Topped Shorthorns at Auction

Sale Pavilion

Falls City, Neb., Thursday, March 7, 1918



40 HEAD GOOD PRACTICAL SHORTHORNS—HEAVY MILKING FAMILIES—40

17 BULLS in age from 6 to 24 months. All nice reds and good individuals. 23 FEMALES, 6 good young cows all bred and several with calves at foot, by my herd bull, THE BOYNE REX, one of the best bulls ever sired by Scottish Rex. 17 very choice helpers sired by The Boyne Rex and selling open. This bull is a 2400-pound bull in flesh and individually as good as the best. Most of the young bulls are also by him. There will be some great values in the open heifers. I am compelled to sell them as their sire is not for sale at any price and I cannot afford to own two valuable herd bulls. Write for catalog and mention this paper.

FRANK UHLIG, Falls City, Neb.

Auctioneers—Col. J. C. Price, Col. Herman Ernst, Jesse R. Johnson will represent Capper Farm Papers.

E. P. Flanagan's Immune Duroc-Jersey Bred Sow Sale

50—Head—50

38 big, well grown spring gilts and 12 tried sows that are in their prime and challenge the west as money makers.

Sale under cover at my farm and free conveyance from Chapman and Alida. Free hotel accommodations at Chapman. Good R. R. connections via Junction City or Clay Center.

Washington's Birthday, Chapman, Kansas
Friday, February 22nd

The gilts were sired by Kansas Chief, who is a sire of big smooth gilts that will not be duplicated in many Kansas sales this winter. These gilts are immune and of strictly big type and all are safely passed over and safe to the service of Col. Uneeda's Wonder, a splendid sire bred by Ed Kerns and strictly big type.

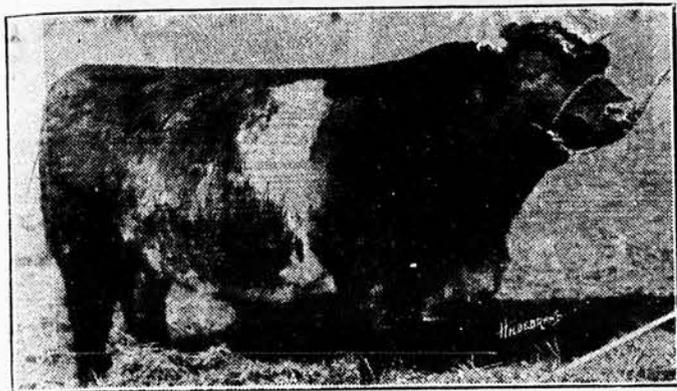
My catalogs are ready to mail and you will receive one as soon as you send me your name. Send your bids to J. W. Johnson in my care. Address

E. P. Flanagan, Chapman, Kan.

Jas. T. McCulloch, Auctioneer. J. W. Johnson, Fieldman.

Scotch and Scotch Topped Shorthorns

At Public Auction, Orleans, Neb., March 5, 1918



SCOTTISH REX 2ND.

45 Head in All, 30 Females All Sired By or Bred to the Great Scotch Bull Scottish Rex 2nd

15 bulls 10 to 18 months old, three by **SCOTTISH REX 2ND**, including 5 or 6 extra big range bulls. 14 cows sell bred to or with calves at foot sired by **SCOTTISH REX 2ND**. This splendid herd bull weighs 2100 lbs. in ordinary breeding form. Also 16 heifers, bred.

I am selling some bulls good enough to head any breeders' herd and many of the females being cataloged should stay in the herd but I am changing locations and for this reason I am selling much that would not otherwise be for sale. The female division is especially strong, and taken as a whole this is by far my best sale offering. Write for catalog. It gives all information. Mention this paper.

Auctioneer—Col. H. S. Duncan
Fieldman—Jesse R. Johnson

K. F. Dietsch, Orleans, Harlan Co., Neb.

GEIKEN'S BIG IMMUNE DUROC-JERSEY BRED SOW SALE

Cozad, Nebr., Thursday, February 28th

52-Head-52

Great Individuality and Richly Bred

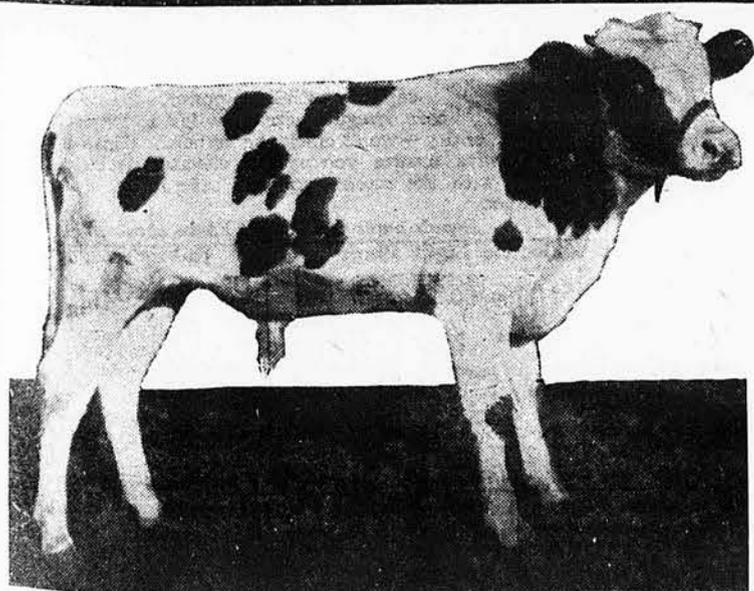
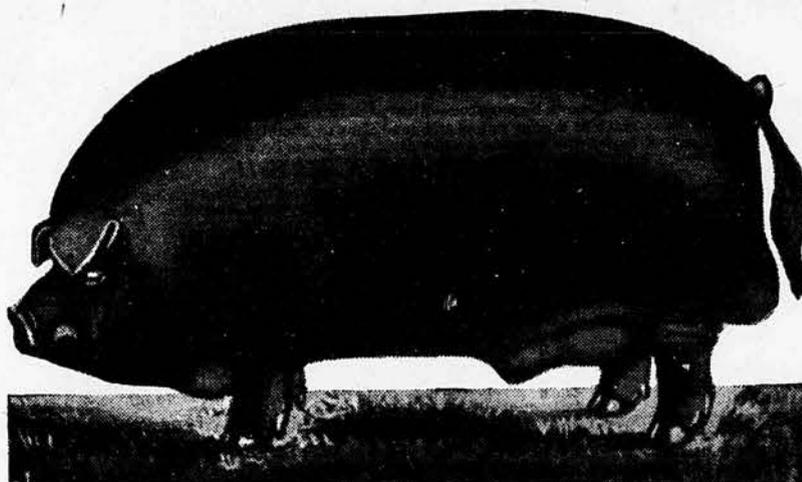
6 Tried Sows and 6 Fall Gilts, sired by Big King The Col 198867, one of the greatest sons of King The Col.

40 Head of Spring Gilts, sired by Big King The Col., Pride's Illustrator 2d, and Cleatham's Pride 2d. The offering has been carefully selected and fed and will be bred to the herd boars, Bader's Smooth Sensation, by Sensation Wonder 4th; Great Wonder's Model 2d, a son of Great Wonder, and a few to Red Wonder, by Red Taylor, and Golden Model, by I Am A Golden Model.

Write for catalog and mention this paper. Send bids to Jesse R. Johnson in my care at Cozad.

Auctioneers: Col. Joe Shaver,
Col. E. D. Snell.

H. D. GEIKEN, COZAD, NEBRASKA



17th Spring Farm King Pontiac at six months old.

This great sire is three years old March 14 and is very likely the most valuable Holstein bull ever sold at auction or private sale in Kansas. His great sire, Spring Farm King Pontiac 6th, is often referred to as the best bred bull in the world. 17th Spring Farm King Pontiac carries over 43 per cent the blood of a 44 pound cow. His dam, great-granddam, sire's sister and dam's sister average for the five, 35.79 pounds butter in seven days. His dam is a 26.60 pound daughter of old Sarcastic Lad, the world's fair champion, whose sons have sired world's record calves.

17th Spring Farm King Pontiac 6th Dispersion Sale

Sale at the Farm near Glen Elder, Kan., Mitchell Co.

Glen Elder, Kansas, Monday, February 25, 1918

I have sold my farm and am removing to New York state, hence the dispersion of my

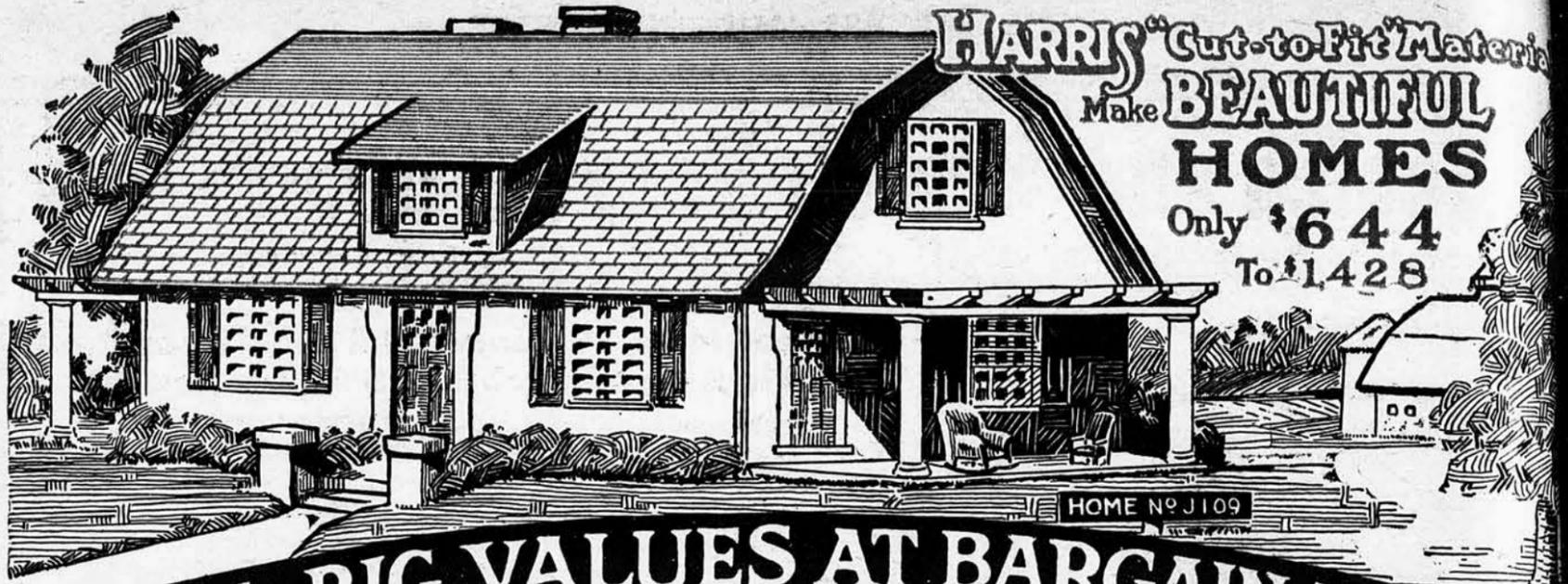
Holstein-Friesians—30 Head Go in the Sale

9 pure bred cows, four registered and the others not eligible to registry. All either giving milk now or to freshen soon. One registered cow has A. R. O. record and the rest eligible. One is a daughter of a 31 pound bull. One registered heifer yearling last Sept. bred. Two registered bull calves by 17th Spring Farm King Pontiac 6th. Two registered heifer calves by him. 12 heifer calves, about 9 months old, some pure bred and others 15-16 pure bred. Two pure bred bull calves not eligible.

Catalogs ready to mail now. Address

Warren S. Neff, Glen Elder, Kansas

Auctioneers: Col. "Zeb" Branson, Lincoln, Neb.; Col. Will Myers, Beloit, Kan. J. W. Johnson, Fieldman.



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 Only \$644
 To \$1428

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 "The Harris Way" has exclusive merits — special advantages for the shrewd and careful home builder, possessed by no other plan or method. It is the best, safest and most sensible way to build your ideal home right without wasting a single penny.
 The material used in building all Harris Homes is prepared complete for your use in a way that is instantly and easily understood. It is sensibly "cut-to-fit" with absolute accuracy and positive elimination of all waste. You pay us for nothing you do not get — only for what is needed to do the work right — "The Harris Way." Think twice before you pass this opportunity — mail coupon now!



Genuine SHARPLES CREAM Tubular A SEPARATORS

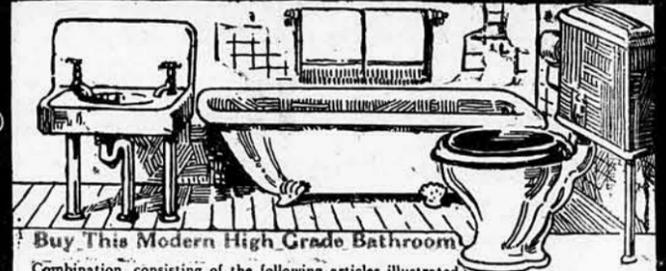
Last Call For This Great Cream Separator Sale! Tremendous Price Reductions!
 The "world's best" Cream Separator—Sharples famous original Tubular "A" is now within your reach at a price so low and conditions so liberal, you cannot possibly refuse. Don't put off buying your Separator another day. The time to act is here, for our limited stock is going fast.
BUY ON YOUR OWN TERMS!!
 Mail the coupon below for Sharples Tubular "A" Cream Separator colored illustrated catalog; easy terms, 30-days' free trial plan, the double guarantee and our big reduced price offers. Learn why P. M. Sharples picked us for this great public service.
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 Better still, order direct from this advertisement. Shipments direct to you from eight centrally located distributing warehouses in every section of the country, East, West, North, South. Prices are on board cars at various warehouses. This means big freight savings and quick deliveries. Liberal Allowance for your Old Separator.

Order No.	Sharples Size	Lbs. per hour	Regular Price	Our Price
GL-20	No. 2	300 lbs.	\$55.00	\$32.75
GL-30	No. 3	400 lbs.	\$69.00	\$40.00
GL-40	No. 4	500 lbs.	\$75.00	\$45.00
GL-60	No. 6	700 lbs.	\$90.00	\$52.50
GL-90	No. 9	900 lbs.	\$100.00	\$70.00

Special discount of 3% if cash accompanies order.



\$49.50 HIGH GRADE BATH ROOM COMBINATION
Greatest Bargain Ever Offered



Buy This Modern High Grade Bathroom
 Combination, consisting of the following articles illustrated above: Bath tub, closet outfit, and lavatory. If you are figuring on furnishing your bathroom you could make no better selection than this offering. The bath tubs are 5 feet by 3 1/2 feet long, in the rim enameled style, with No. 4 1/2 Fuller Bath Cock, connected waste and overflow and nickel-plated supply pipes. The lavatory is in a handsome deep apron style, high grade white enameled iron of the best quality. Complete with "hot" and "cold" china index faucets, nickel-plated pipe connected to the floor. The Closet Outfit has a high grade golden oak tank and seat with syphon action closet bowl.
 No. 3 GL 102. Complete as described above. Bathroom Outfit..... \$49.50
 Individual Items:
 Bath Tub..... \$25.50 Closet Outfit..... \$16.50 Lavatory..... \$14.75
 Other outfits up to \$150.00
 Write for our Complete Plumbing Supply Catalog.

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Order Today From This Bargain List!
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LOOK AT THESE SAVINGS!

Ajax high grade rubber surfaced Roofing; put up 108 sq. ft. to the roll. Complete with nails and cement. Lot No. GL302, 3 ply, \$1.07
 Lot No. GL303, 2 ply, roll \$1.17; 1 ply, roll..... \$1.07

Rawhide Stone Faced Gold Medal Roofing, guaranteed 15 years. Rolls contain 108 sq. ft., nails and cement included. Lot No. GL303, Roll..... \$2.20

Our famous Rawhide Rubber Roofing, 3 ply, guaranteed for 12 years; a high grade covering. Rolls contain 108 sq. ft., nails and cement included. Lot No. GL304, 3 ply, roll \$1.50; 2 ply, roll \$1.40; 1 ply, roll..... \$1.20

10,000 Rolls of Extra Heavy high grade Roofing; Red or Gray Slate Coated, Rock Faced, Brown Pebble Coat, Double Sanded, Mineral or Mica Surfaced. Lot No. GL305, roll 108 sq. ft. with nails and cement..... \$1.90

28 gauge, painted, 2 1-2 in. corrugated overhauled siding sheets; 5 1-2 ft. long; Lot No. GL306, 100 sq. ft..... \$2.50

26 gauge, painted, 2 1-2 in. corrugated overhauled roofing sheets; Lot No. GL307, 100 sq. ft..... \$3.00

24 gauge, Extra Heavy, painted, 2 1-2 in. corrugated overhauled sheets for roofing barns, granaries, etc. Lot No. GL308, 100 sq. ft..... \$3.50

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 Shells, Cleans and Loads All the Corn Stacks the Cobs
 The biggest and best opportunity you will ever have to own "The World's Best" Corn Sheller, and save almost half. Most simple, durable and economical sheller on the market. Big capacity with little power. Shells hard or soft corn, irregular sizes, smallest to largest ears, green or dry—won't crack the kernels. Clean shelled corn always insures you against elevator dockage. Pays for itself with the money you will save in one season. Order No. GL-900.

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<p>Olds Gasoline Engines \$33 1 1/4 H.P. to 15 H.P. The real long service engines. Sizes from 1 1/4 H.P. to 15 H.P. Order No. GL901 for 1 1/4 H.P. Larger sizes proportionately low.</p>	<p>Electric Light Plant \$197.50 Complete 75 Lights Rumely-Falk Outfit, complete with Willard rubber jar storage batteries. 75 Light, 30 Volt plant. Order No. GL902..... \$197.50</p>	<p>Robinson Hay Baler \$200 Size 14x18 ins. Best made. Biggest capacity. Built to run from either large tractor or small gas engine. Order No. GL903, hand feed, size 14 in. x 18 in. Other sizes in proportion</p>
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<p>Mixed Nails 100 lb. Keg \$2.95 Put up in 100-lb. kegs. New polished nails; 3d to 40d. Order No. GL904</p>	<p>Iron Pipe 1-inch 7c Per Foot Good Iron Pipe, in random lengths, complete with couplings. All sizes. Order No. GL905, 1-inch, per foot..... 7c Order No. GL906, 1 1/4-inch per foot..... 9c</p>	<p>Fence Posts 4 Foot Long 35c Tubular Iron Fence Posts; pointed drive; 2-in. diameter; from 48 in. to 84 in. long. For 48 in. posts order No. GL907, with clamps complete..... 35c Larger posts proportionately low</p>	<p>Hog Troughs 4 Feet Long \$1.15 Strong, durable troughs, for hogs and cattle, heavy galvanized material, painted black, braced with steel cross bar; easily cleaned. For troughs 4 long, 15 wide, 6 in. deep, order No. GL908, each..... \$1.15 6 for \$6.00</p>	<p>Mixed Paint Per Gallon \$1.67 Harris' Guaranteed House Paint of best formula. 36 colors to choose from. Order Lot GL909, per gallon \$1.67 For Best Barn Paint, Order Lot GL910, per gallon \$1.00</p>
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